

QuiltMotion

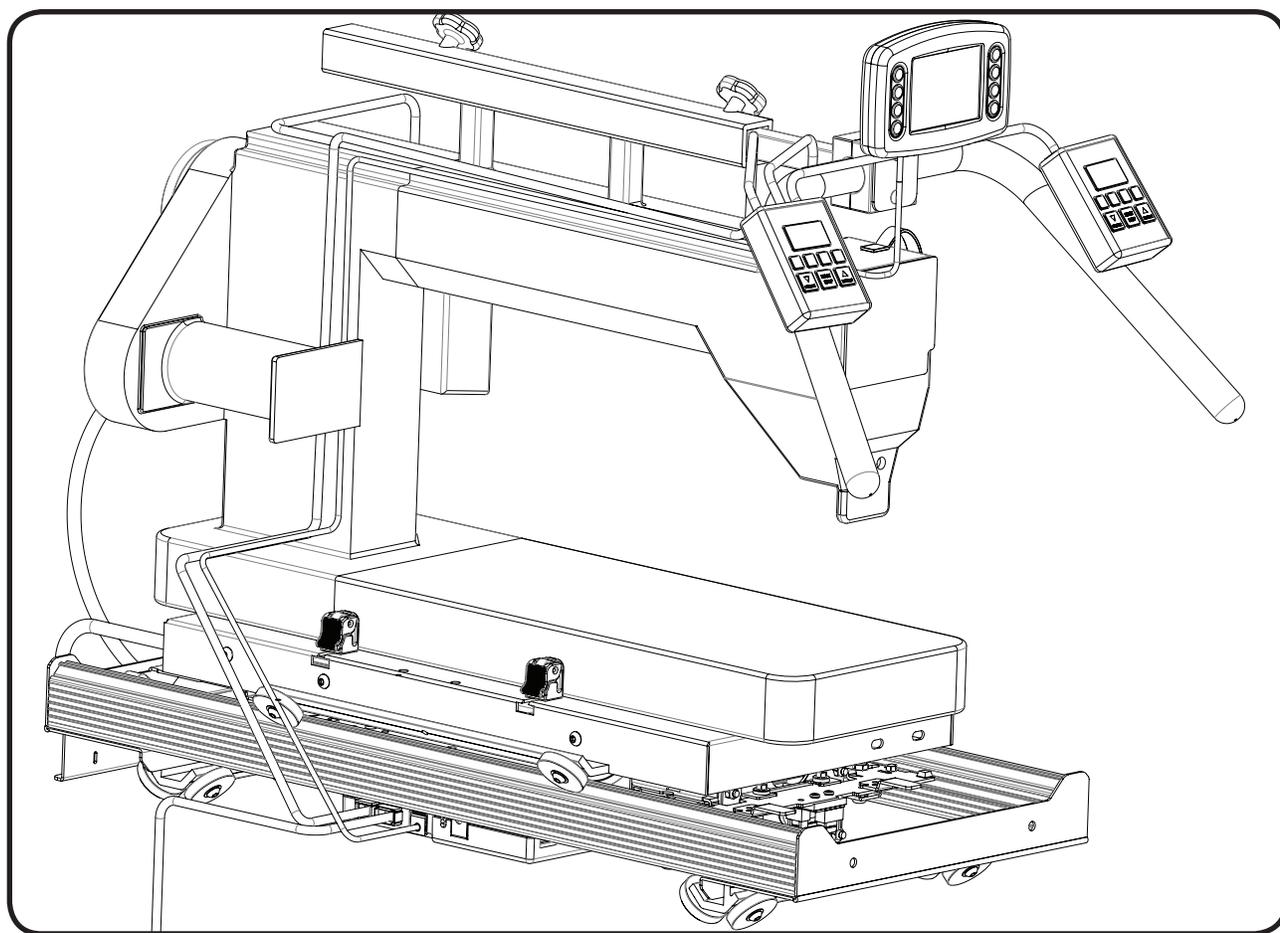
with Eclipse Quilting

Installation Guide



Customer Help-line: 1-800-264-0644

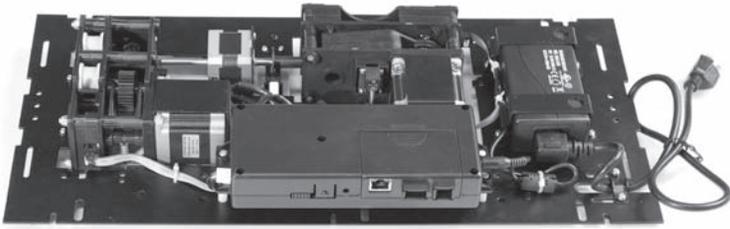
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Parts List

Quilt Motion Motor Plate



M6 X 10mm Hex Bolt (4)



M6 X 20mm Hex Bolt (4)



M6 X 10mm Socket Button Head Cap Screw (2)



M6 X 14mm Socket Button Head Cap Screw (5)



Belt Tensioner (2)



Carriage Clamps (5)



Belt Clamp Front (2)



Belt Clamp Back (2)



Long Belt



Short Belt



Zip Ties (10) and Plastic Tie Mounts (8)



Plastic Cable Wrap (2)



Velcro Ties (10) (Not Pictured)

Metal LCD Mount



LCD Knob



M5 x 30mm SHBC



M5 Metal Spacer



Allen Wrench



LCD Display



Power Strip



Computer USB Cord



LCD Display USB Cord



Color dots found on cables are a sign that the cable has been hand tested to ensure the highest quality.

Eclipse Quilting Components

All Systems

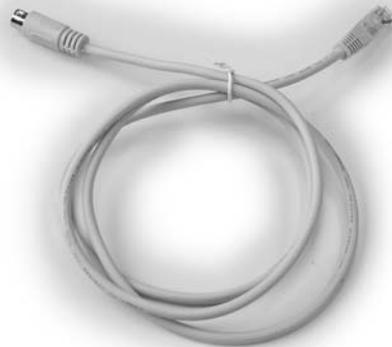


Eclipse Quilting Control Box



Quilt Motion Data Cable

Viking, Pfaff,
18.8, TinLizzie LS



Sewing Machine to
Control box cable



Control Box to
Handle bar control

TinLizzie DLS



Control Box to DLS Handle Bar Control

Step 1: QuiltMotion Plate Setup

Parts Needed (as shown in Fig. 1-1.):

- QuiltMotion Plate
- Frame Bottom Carriage
- M6 x 14mm SBHC Screw (5)
- M6 Hex Nut (5)
- Carriage Clamp (5)
- Allen Wrench (1)

Additional Tools Needed:

- 10MM Wrench (1) Not included

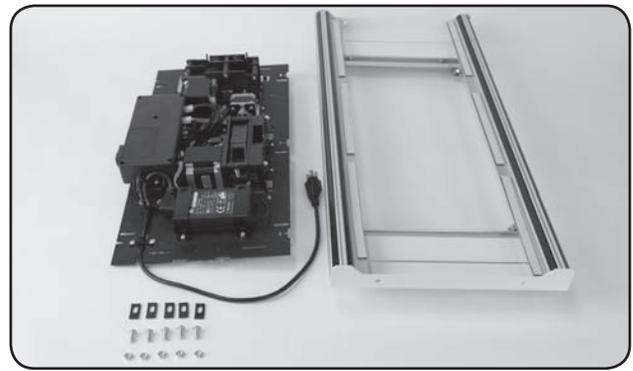


Fig. 1-1

Note: You may have an older or different version of the Carriage other than the one shown here. The older version has holes for the Power Strip (see the next step) at only one end. If you have an older version, the QuiltMotion Plate must be inserted into the carriage so that the power cord comes out the back by the holes for the Power Strip as shown in Fig. 1-2.

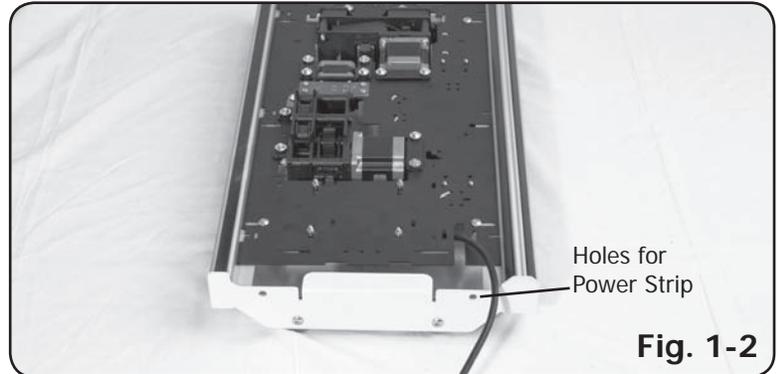


Fig. 1-2

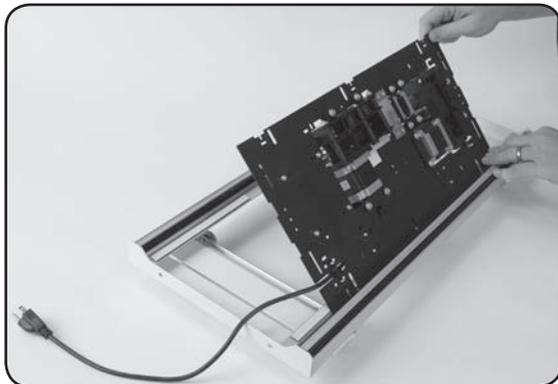


Fig 1-3

Step 1-1: Insert the QuiltMotion plate into the bottom carriage plate at an angle as shown in Fig 1-3.

Step 1-2: Attach the QuiltMotion Plate to the Bottom Carriage using the (5) Carriage Clamps and the (5) M6 x 14mm SBHC Screws and (5) M6 Hex Nuts, as shown in Fig. 1-4 through 1-7. Do not tighten the nuts all the way, as you will need to align the plate with the belts in a later step.

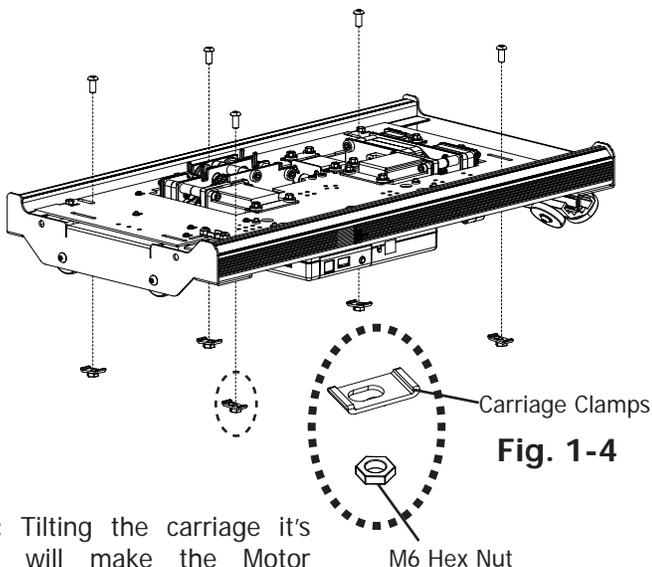


Fig. 1-4

Tip: Tilting the carriage it's side will make the Motor Plate easier to manage while installing the Carriage Clamps

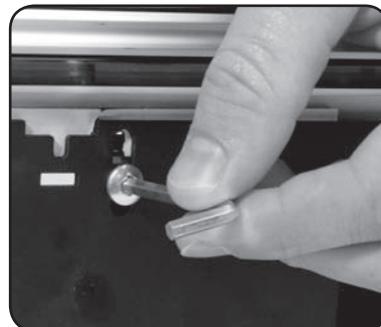


Fig. 1-5

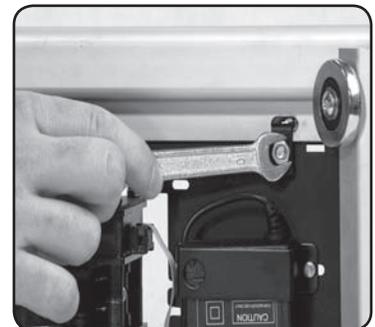


Fig. 1-6

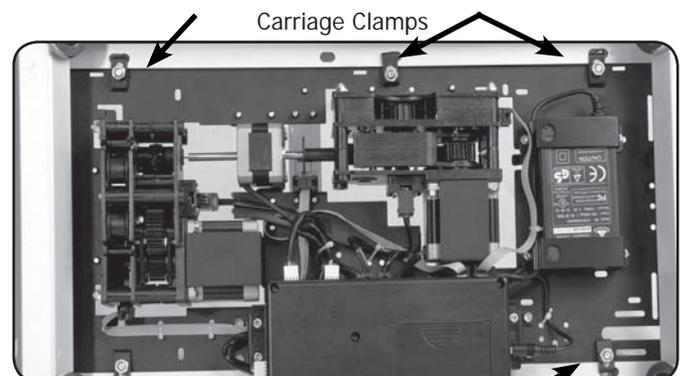


Fig. 1-7

Carriage Clamps

Step 2: Installing Power Strip

Parts Needed:

- Frame Bottom Carriage (1)
- Power Strip (1)
- M6 x 10mm SBHC Screw (2)
- M6 Hex Nut (2)
- Allen Wrench (1)

Additional Tools Needed:

- 10MM Wrench (1)

Step 2-1: Attach the Power Strip to the Bottom Carriage using the **(2) M6 x 10mm SBHC Screws** and **(2) M6 Hex Nuts** as shown in **Fig. 2-1** and 2-2. Plug the QuiltMotion Plate into the Power Strip as shown in **Fig. 2-2**.



Fig. 2-1



Fig. 2-2

Step 3: Top Plate Belt Clamp and Tensioner

Parts Needed:

- Frame Top Carriage (1)
- Belt Tensioner (1)
- Belt Clamp Front (1)
- Belt Clamp Back (1)
- Short Belt (1)
- M6 x 10mm Hex Bolt (2)
- M6 x 20mm Hex Bolt (2)
- M6 Hex Nut (4)

Additional Tools Needed:

- 10MM Wrench (1)

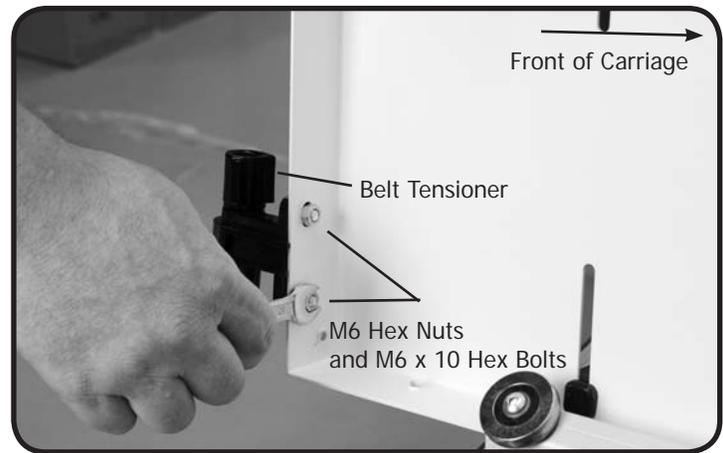
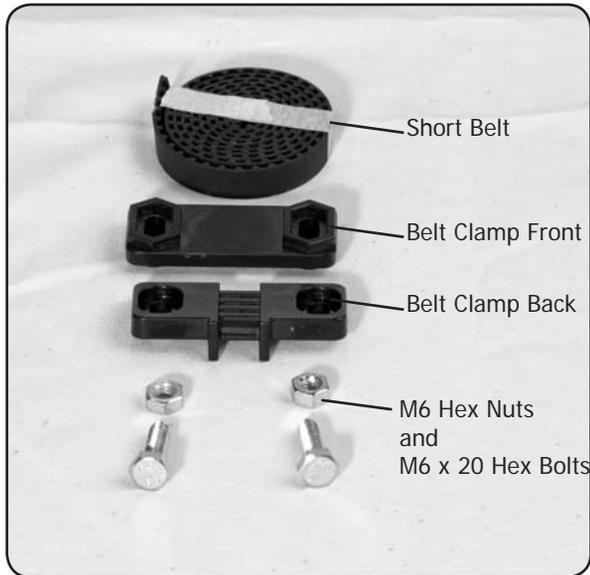


Fig. 3-1



Fig. 3-2



Fig. 3-3

Step 3-1: Attach the Belt Tensioner to the back of the Top Carriage using (2) M6 x 10mm Hex bolts and (2) M6 Hex Nuts as shown in Fig. 3-1. Make sure the slot for the belt in the Tensioner is facing down.

Step 3-2: Next, place one end of the Short Belt in between the Belt Clamp Front and Belt Clamp Back as shown in Fig. 3-2 and Fig. 3-3. Note the way that the teeth on the belt are facing, they should be facing up or towards the carriage top. Attach the belt clamp with the belt to the front of the bottom carriage using (2) M6 x 20mm Hex Bolts and (2) M6 Hex Nuts as shown in Fig. 3-4.

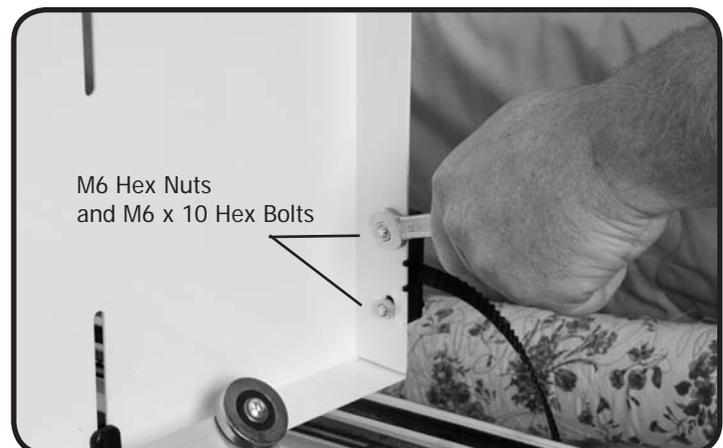


Fig. 3-4

Step 4: Belt Clamp to Frame End

Parts Needed:

- Belt Clamp Front (1)
- Belt Clamp Back (1)
- Long Belt (1)
- M6 x 20mm Hex Bolt (2)
- M6 Hex Nut (2)

Additional Tools Needed:

- 10MM Wrench (1)

Step 4: Place one end of the Long Belt in between the Belt Clamp Front and Belt Clamp Back and attach the Belt Clamp with the belt to either side of the frame using (2) **M6 x 20mm Hex Bolts** and (2) **M6 Hex Nuts** as shown in **Fig. 4**. Note the way that the teeth on the belt are facing, they should be facing down or towards the frame.

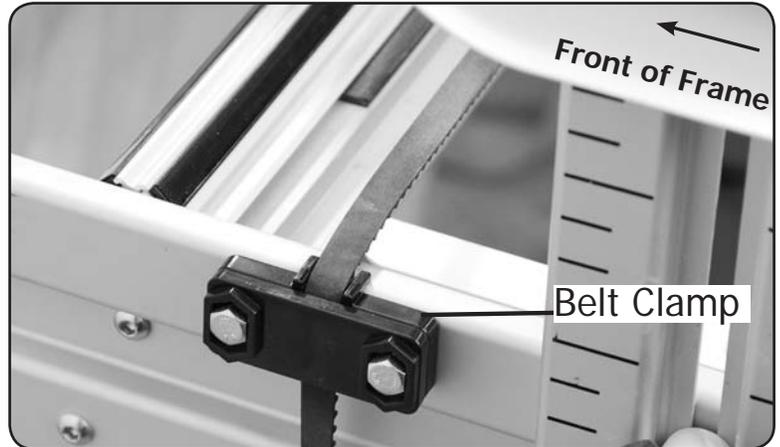
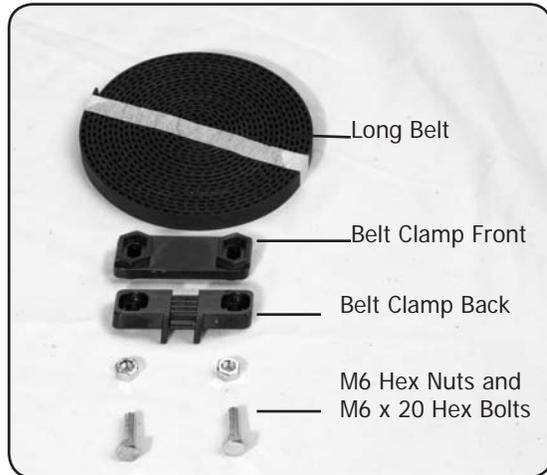
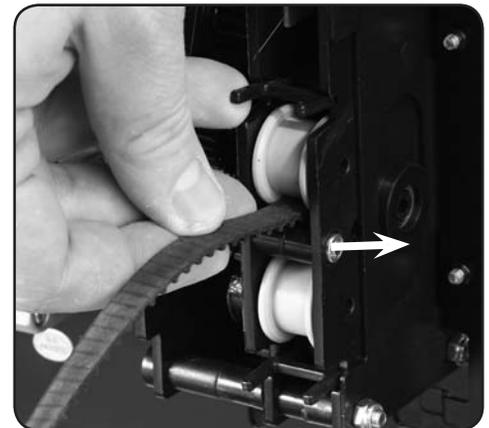


Fig. 4

Step 5: Threading the Belts through QuiltMotion -Carriage to Frame

1. Thread the Long Belt into the gear box in the QuiltMotion Motor Plate from the bottom until it comes out the top of the carriage as shown in **Fig. 5-1** and **Fig. 5-2**.
2. Loop the belt over and feed the belt back through the gear box, until it comes back out of the bottom as shown in **Fig. 5-3** and **Fig. 5-4**.
3. Pull the rest of the slack through QuiltMotion as show in **Fig. 5-4**.

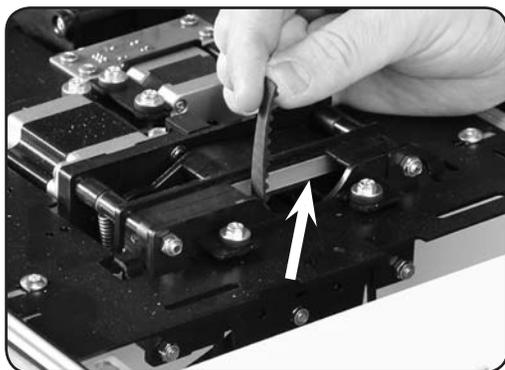
Bottom of QuiltMotion



Feed Belt this direction **Fig. 5-1**

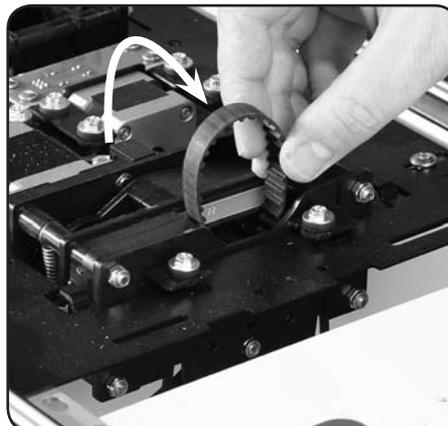
Top of QuiltMotion

Bottom of QuiltMotion



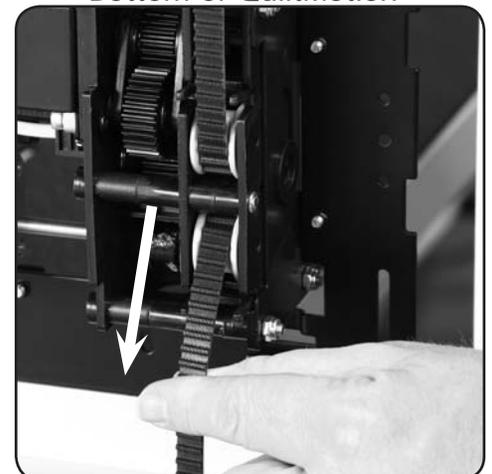
Pull Belt through

Fig. 5-2



Loop Belt this direction **Fig. 5-3**

Bottom of QuiltMotion



Pull belt to Tensioner

Fig. 5-4

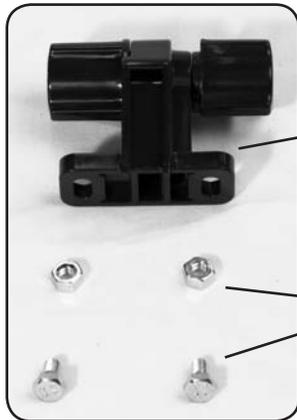
Step 6: Belt Tensioner to Frame End

Parts Needed:

- Belt Tensioner (1)
- M6 x 10mm Hex Bolt (2)
- M6 Hex Nut (2)

Additional Tools Needed:

- 10MM Wrench (1)



Belt Tensioner

M6 Hex Nuts and
M6 x 10 Hex Bolts

Step 6-1: Attach the Belt Tensioner to the opposite side of the frame as the Belt Clamp using (2) **M6 x 10mm Hex Bolts** and (2) **M6 Hex Nuts**, as shown in **Fig. 6-1**.

Step 6-2: Thread the free end of the Long Belt through the Belt Tensioner, as shown in **Fig. 6-2**. Turn the knob as shown to feed the entire belt through.

Step 6-3: Position yourself so you can clearly see the belt under the QuiltMotion Plate. Adjust the QuiltMotion Plate as needed until the belt is centered within the tabs as shown in **Fig. 6-3**. Once the tabs and belt are centered, loosen the belt on the frame. Tilt the carriage on its side and secure the QuiltMotion Motor Plate in its centered position by tightening all 5 of the Carriage Clamps installed in **Step 1**. Now place the carriage back on the track.

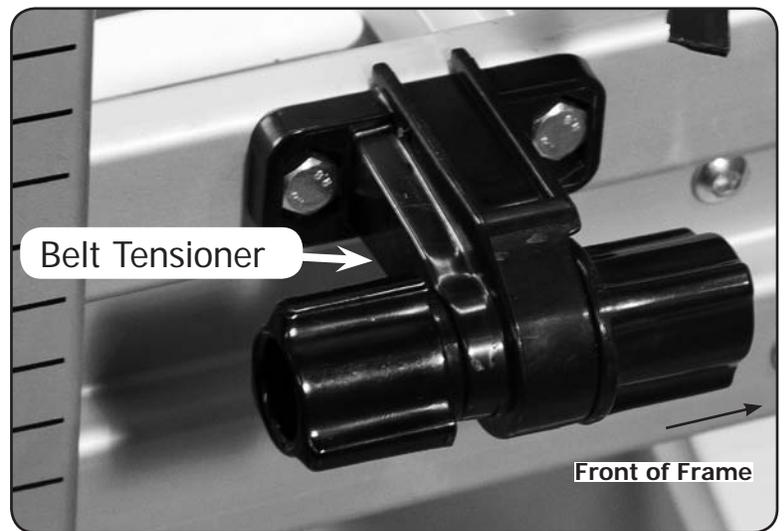


Fig. 6-1



Fig. 6-2

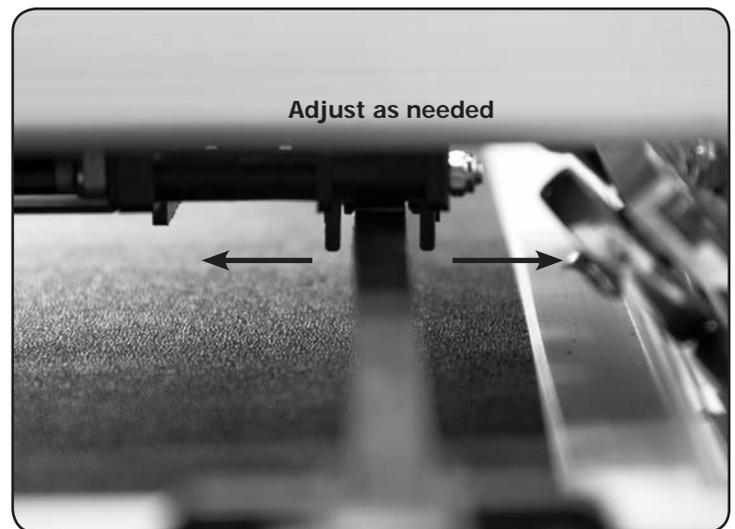


Fig. 6-3

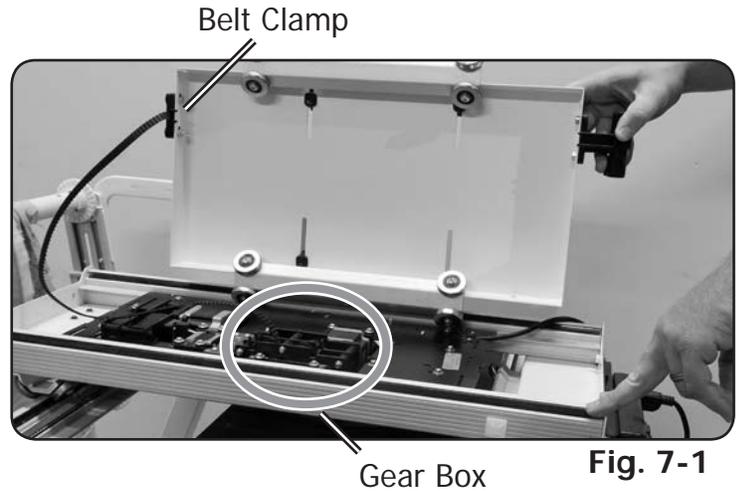
Step 7: Threading the Belts through QuiltMotion -Top Carriage

Parts Needed:

- Top Carriage with short belt and belt Tensioner attached (1)
- Bottom Carriage with QuiltMotion installed(1)

Step 1:

Place the top carriage onto the bottom carriage at an angle. Thread the Short Belt from the Belt Clamp into the gear box as shown in **Fig. 7-1**.



Step 2:

Thread the Short Belt back up through the gear box so it comes out of the top again, as shown in **Fig. 7-2**, **Fig. 7-3** and, **Fig. 7-4**.

Step 3:

Pull the belt through QuiltMotion, place the Top Carriage back onto the Bottom Carriage. Thread the free end of the Short Belt into the Belt Tensioner, turn the knob to tighten the belt all the way through the Tensioner, as shown in **Fig. 7-6** and **Fig. 7-7**.

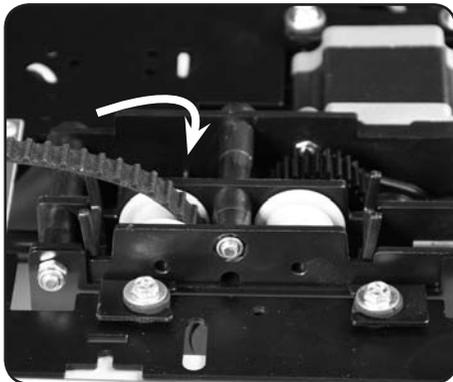


Fig. 7-2



Loop Belt around gear here. **Fig. 7-3**

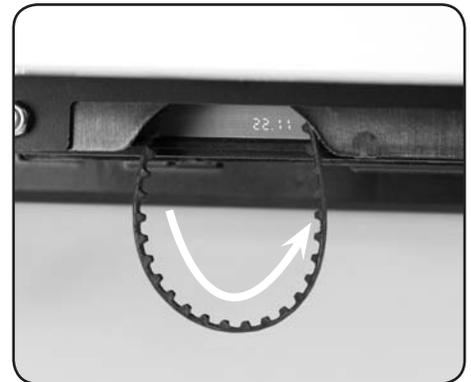
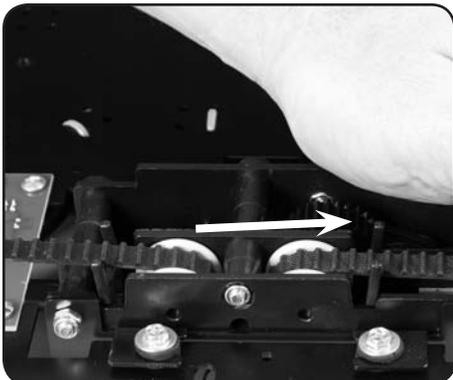
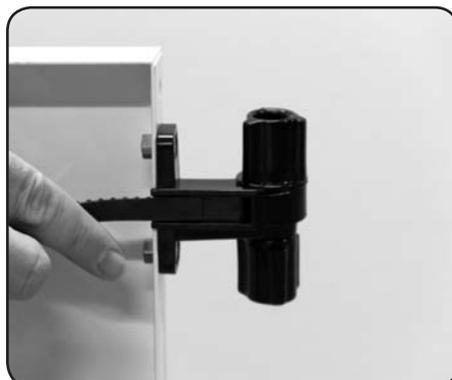


Fig. 7-4



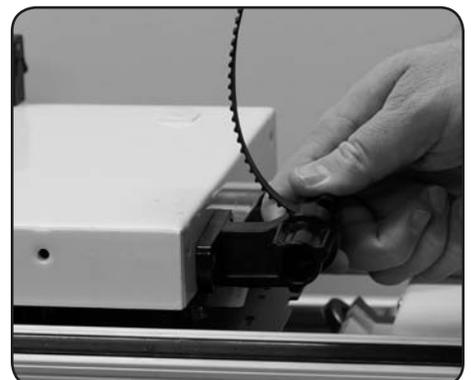
Pull belt this way

Fig. 7-5



Belt into Tensioner

Fig. 7-6



Tighten the Belt

Fig. 7-7

Step 8: LCD Display Installation

Parts Needed:

- LCD Display (1)
- Metal Mount (1)
- 5M x 30mm SHBC (2)
- 5M Metal Spacer (2)
- Top Carriage (1)
- Mini USB Cable (1)

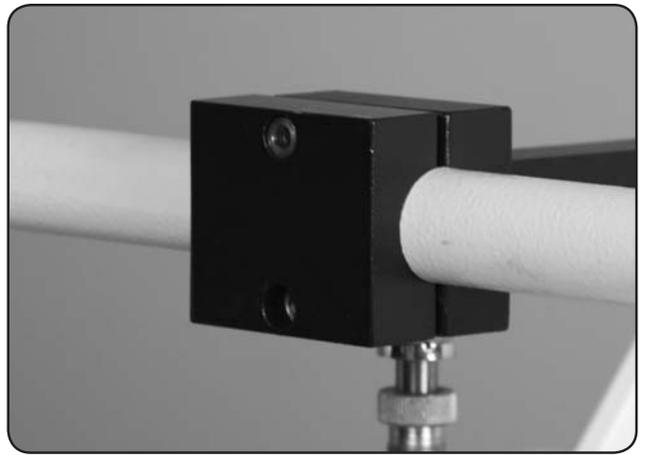


Fig. 8-1

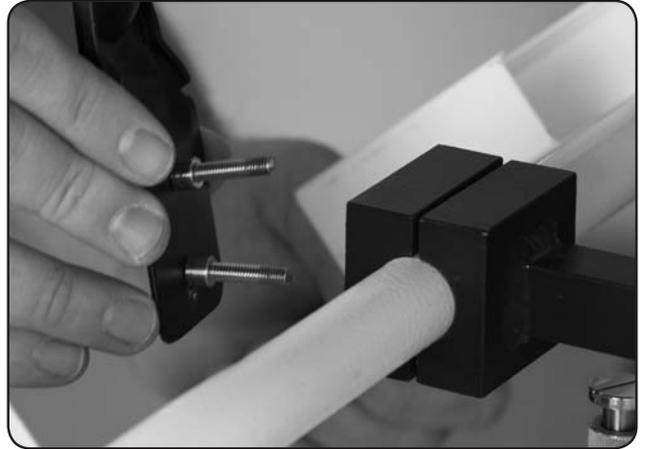


Fig. 8-2

Mounting to the Front Handle Bars

Step 8-1: Remove the two SHBC's from front part of the Handle Bar Mount. **Fig. 8-1.**

Step 8-2: Place the 5Mx30mm SHBC through the Metal LCD stand and place the M5 Metal Spacers onto the bolts for the Front Handle Bar fixture as shown in **Fig. 8-2.**

Step 8-3: Using a 3mm Allen wrench, tighten the 5M x 30mm but allow enough room for the handle bars to move freely.

Step 8-5: Make sure that the Handle Bars and LCD stand are at a good angle and then tighten the LCD stand bolts **Fig. 8-3.**

Step 8-4: Place the LCD Display on the LCD stand as shown in **Fig. 8-4** and tighten the knob.

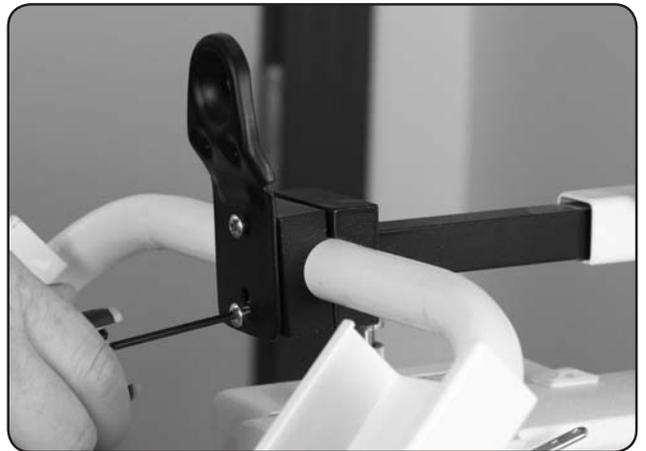
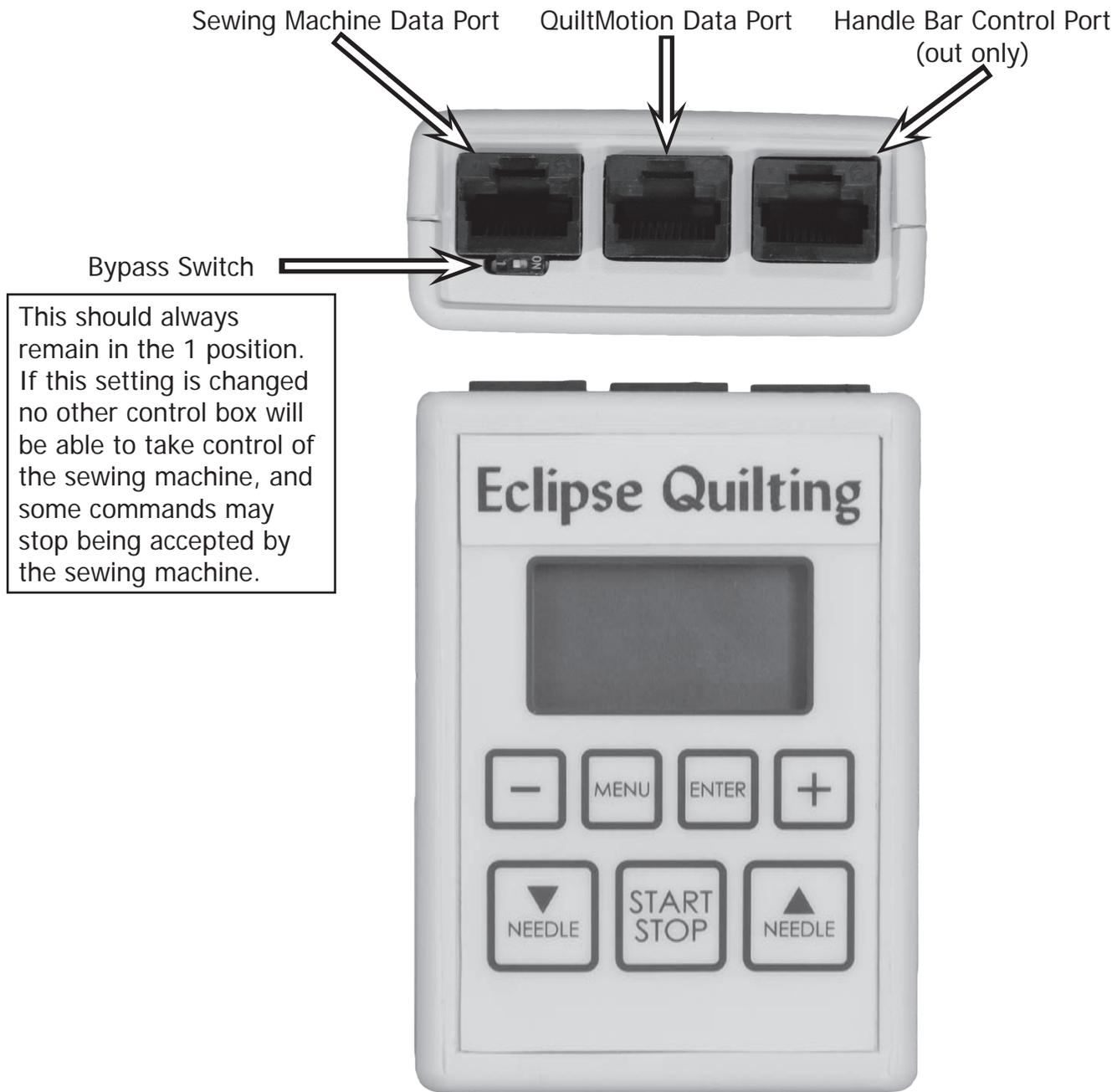


Fig. 8-3



Eclipse Quilting Box Reference Page

The Eclipse Quilting Box is the main hub between QuiltMotion and the Sewing Machine. The cables must be connected according to the pictures shown below. There is no need to have any other handle bar controls connected to this box as it has the ability to do all functions the original control box is capable of doing. However with this control box you do have the ability to have an infinite number of control box's connected. The one that will be in control will be the box that received the most resent input, so if you choose to mount the control box in the back of the machine the front handle bar controls will still be in control just by selecting any button on that control.



After setting the Safety Area the LCD will display the Main Menu, once you click QuiltMotion the Eclipse Control Box will take control of the sewing machine and place it into QuiltMotion mode.

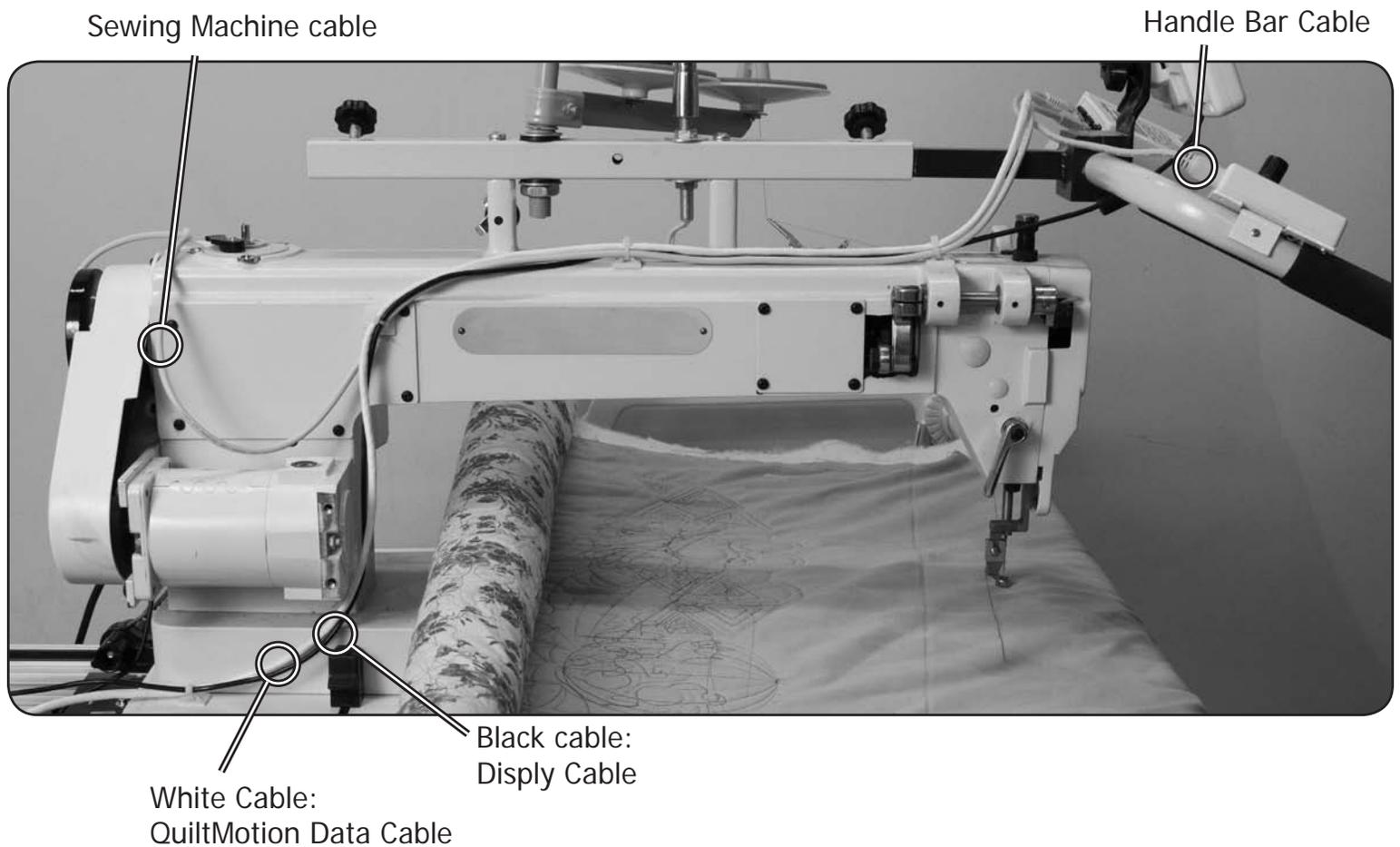
One quick way to verify if the correct connection has been established is to perform a Single Stitch, if that stitch is successful all sewing commands from QuiltMotion will be accepted by the sewing machine.

Wiring Example

Before you start wiring the system please review the example below.
Your machine may not look exactly like the one shown, but the wiring will not change.

There will be one cable, the Sewing Machine Cable, coming from the back of the sewing machine into the left sewing machine connector on the Eclipse Quilting Control Box. There will be two cables coming from QuiltMotion, one will connect the LCD and the other goes into the center connector of the Eclipse Quilting Control Box. The last cable will connect the Eclipse Quilting Control Box to the original Handlebar Control Box that is already installed.

Please note that some cables will be longer than what is needed. If that is the case you will want to 'loop' up any slack as to not interfere with any fabric in the throat of the sewing machine.



Step 9a: Cord Set Up for Viking Pfaff LS and Ansley

Parts Needed:

- Computer USB Cable (1)
- LCD USB Cable (1)
- Sewing Machine Data Cable (1)
- QuiltMotion Data Cable (1)
- Handle Bar Cable (1)
- Zip Ties (8)
- Plastic Tie Mounts (10)
- Velcro Ties (6)

Important!

Please ensure that QuiltMotion and the Sewing machine are powered off completely before connecting or disconnecting any electrical parts or data cables.

Note: Make sure there is slack left in the cords in the lower rear of the carriage to allow free carriage movement without pulling cords.

Step 9-1: The QuiltMotion Data Cable connects from the QuiltMotion Motorplate to the Eclipse Box into the center connector. Then connect to the Handle Bar Control box using the Handle Bar Cable, as shown on **Page 11, Fig. 9-2 and 9-3**. The Computer USB Cable connects from the QuiltMotion plate to your computer.

The LCD Display USB Cable connects from the QuiltMotion Plate to the LCD Display, as shown in **Fig. 9-4**.

Velcro Ties and Plastic Zip Ties and mounts are shown with arrows in **Fig. 9-1**. Additional Velcro Ties, Zip Ties and mounts may be used as needed.

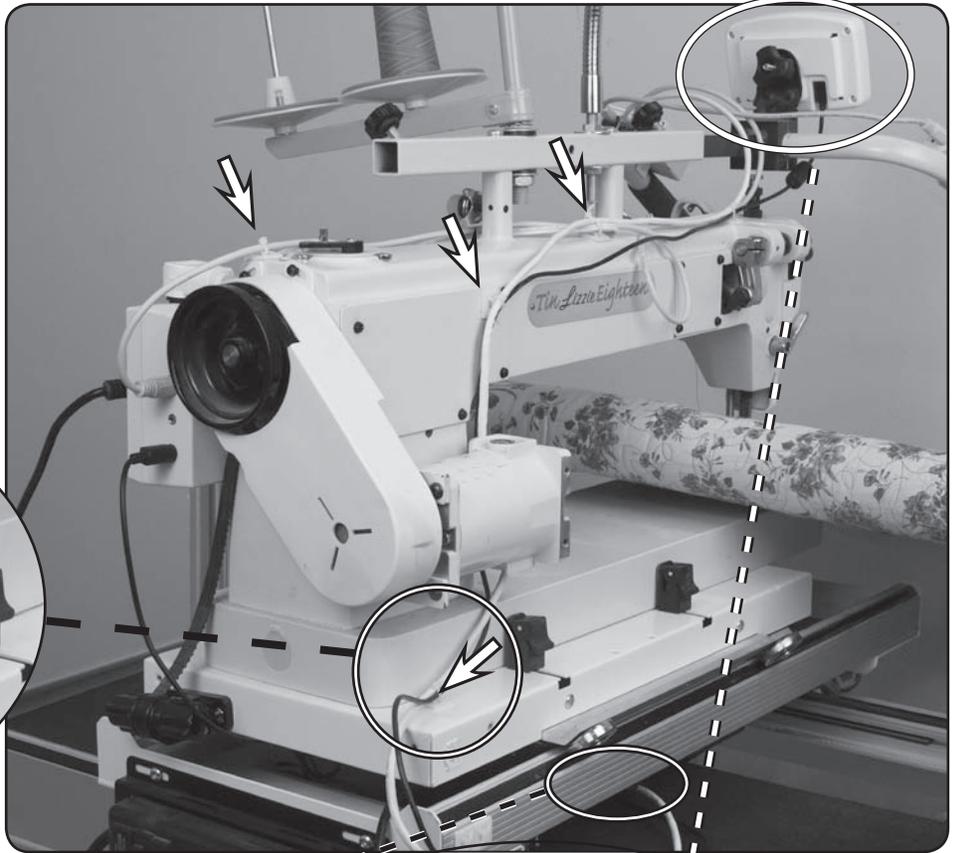
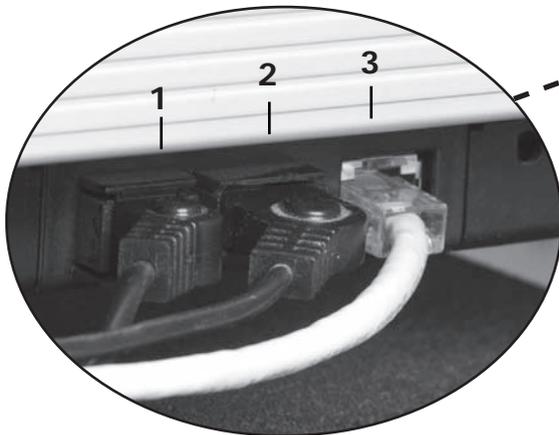
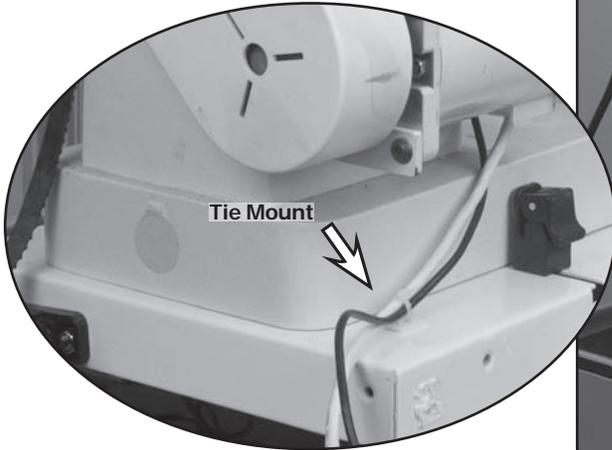


Fig. 9-1



1. Computer USB Cable
2. LCD USB Cable
3. Quilt Motion Data Cable

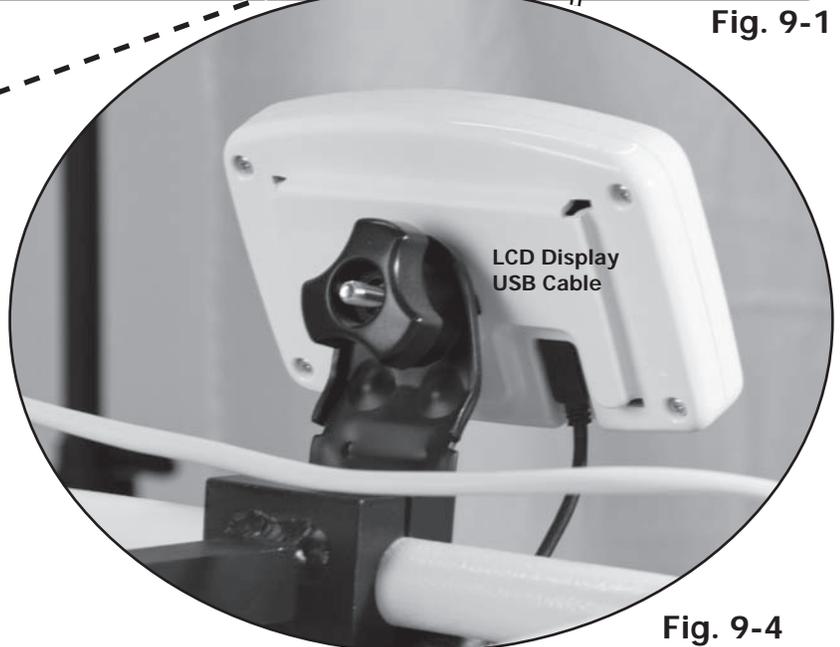


Fig. 9-4

Step 9a: Cord Set Up, continued.

Mounting Eclipse Control box to the front

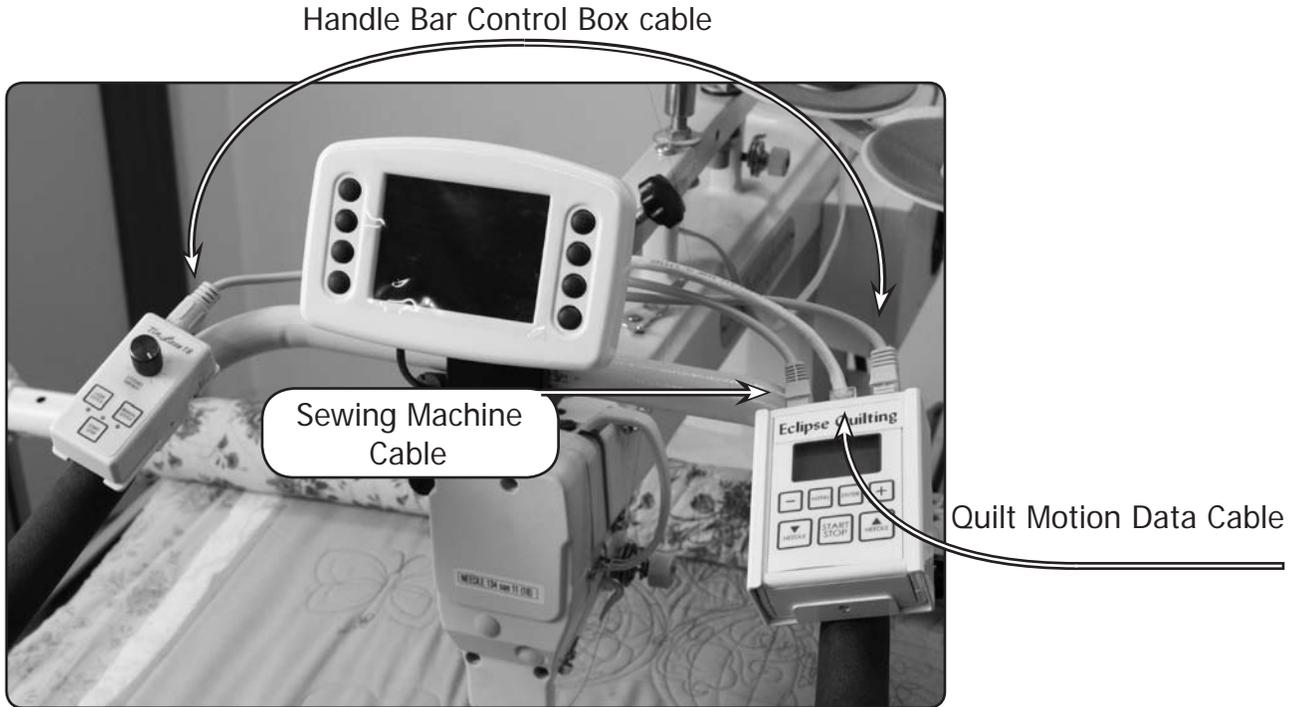


Fig. 9-2

Mounting Eclipse Control box to the Back

As an alternative you can mount the Eclipse Quilting Box to the back of the sewing machine. This way you will not need to remove any front handle bar controls. But the Eclipse Quilting box must be the first connection the sewing machine makes.

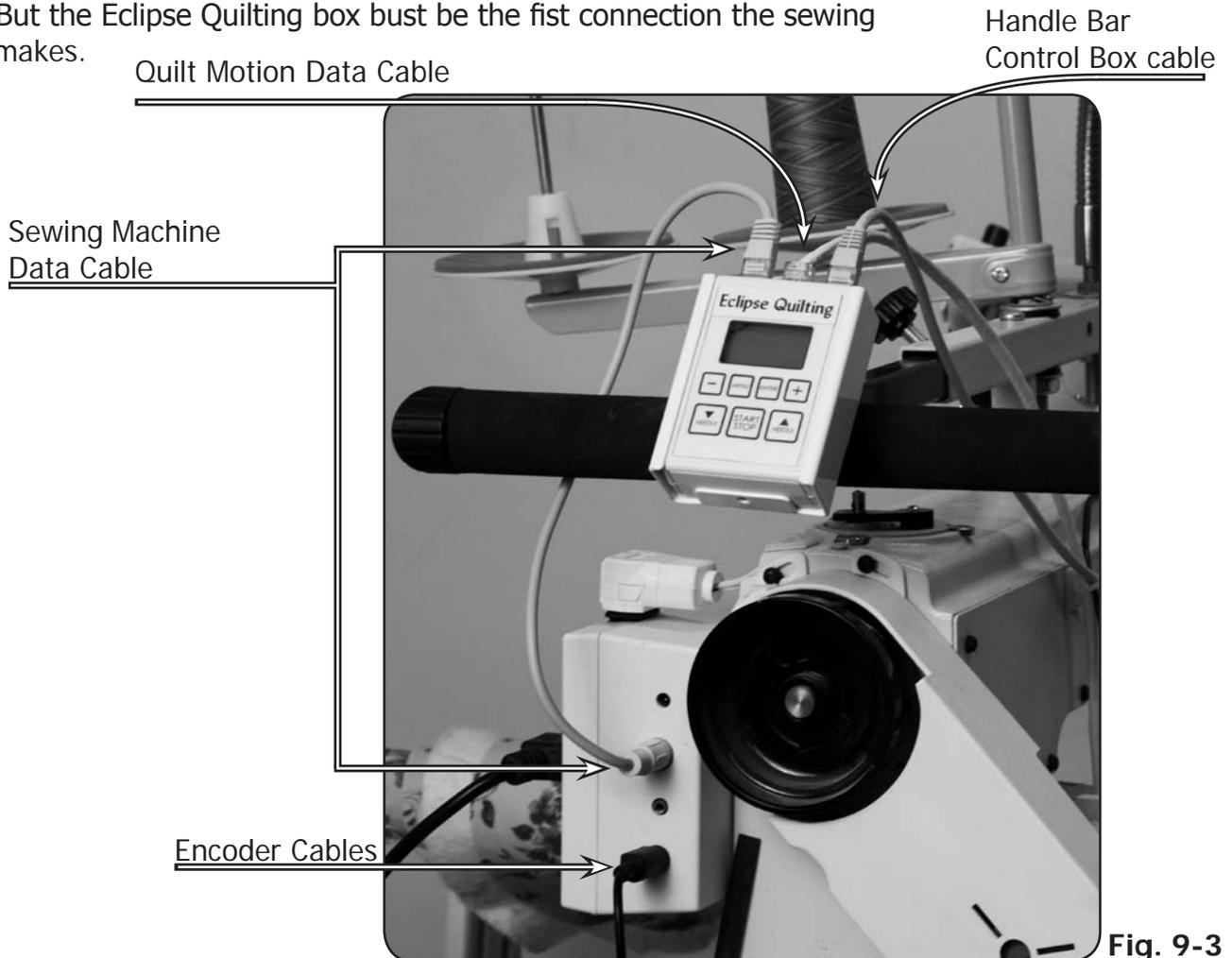


Fig. 9-3

Step 9b: Cord Set Up for DLS

Parts Needed:

- Computer USB Cable (1)
- LCD USB Cable (1)
- Sewing Machine Data Cable (1)
- QuiltMotion Data Cable (1)
- Handle Bar Cable (1)
- Zip Ties (8)
- Plastic Tie Mounts (10)
- Velcro Ties (6)

Important!

Please ensure that QuiltMotion and the Sewing machine are powered off completely before connecting or disconnecting any electrical parts or data cables.

Note: Make sure there is slack left in the cords in the lower rear of the carriage to allow free carriage movement without pulling cords.

Step 9-1: The QuiltMotion Data Cable connects from the QuiltMotion Motorplate to the Eclipse Box into the center connector. Then connect to the Handle Bar Control box using the Handle Bar Cable, as shown on **Page 15, Fig. 9-2 and 9-3**. The Computer USB Cable connects from the QuiltMotion plate to your computer.

The LCD Display USB Cable connects from the QuiltMotion Plate to the LCD Display, as shown in **Fig. 9-4**.

Velcro Ties and Plastic Zip Ties and mounts are shown with arrows in **Fig. 9-1**. Additional Velcro Ties, Zip Ties and mounts may be used as needed.

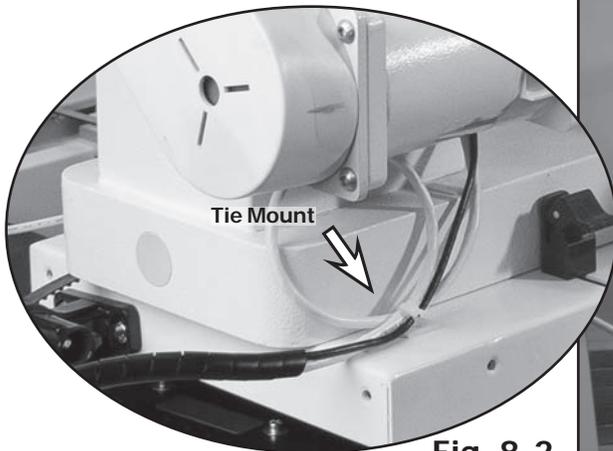


Fig. 8-2

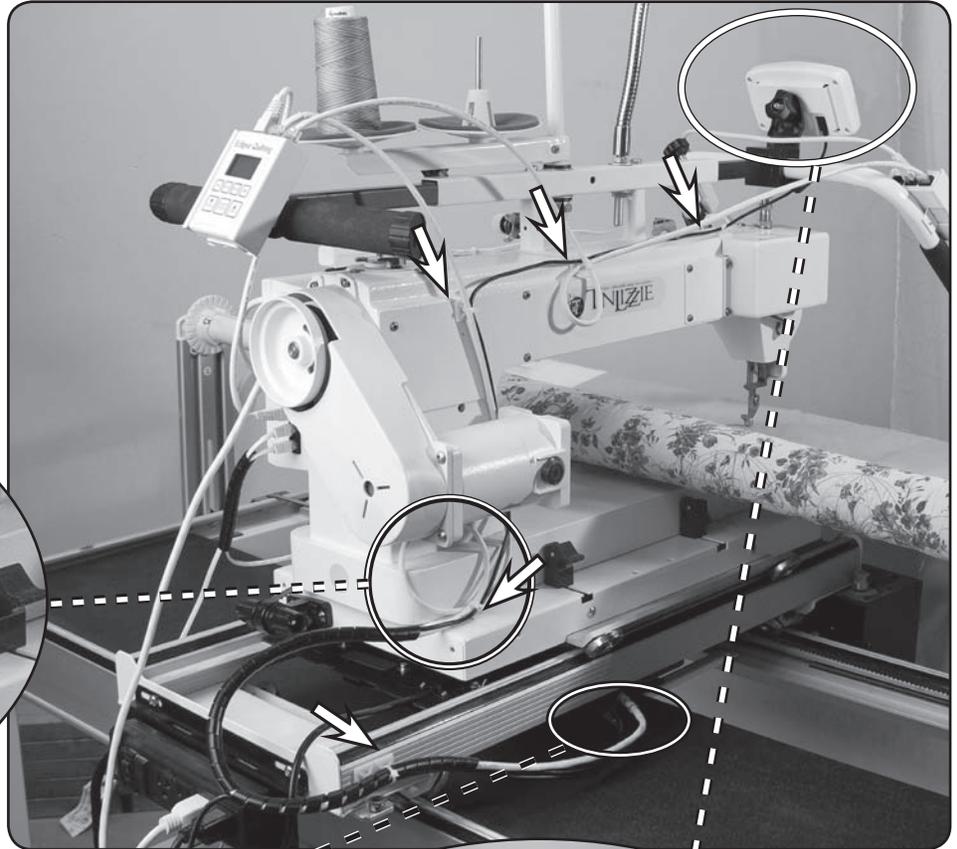


Fig. 9-1

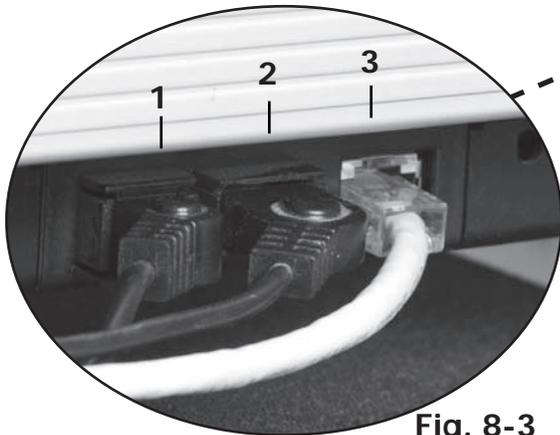


Fig. 8-3

1. Computer USB Cable
2. LCD Display USB Cable
3. Quilt Motion Data Cable

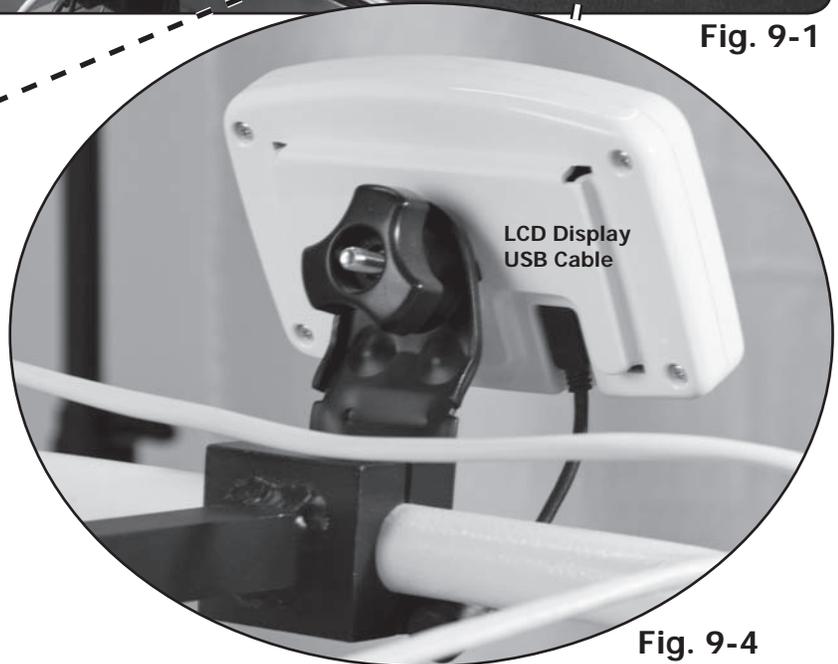


Fig. 9-4

Step 9b: Cord Set Up, continued.

Mounting Eclipse Control box to the front

Handle Bar Control Box cable

Quilt Motion Data Cable

Sewing Machine Data Cable



Mounting Eclipse Control box to the Back

Fig. 9-2

As an alternative you can mount the Eclipse Quilting Box to the back of the sewing machine. This way you will not need to remove any front handle bar controls. But the Eclipse Quilting box must be the first connection the sewing machine makes.

Quilt Motion Data Cable

Handle Bar Control Box cable

Sewing Machine Data Cable



Encoder Cables

Fig. 9-3

Final Installation Checklist

1. Is the QuiltMotion Plate securely attached to the bottom carriage?
2. Is the "Y" axis (short) belt correctly threaded through the QuiltMotion Gear box?
3. Is the "Y" axis (short) belt correctly aligned and the Tensioner/clamp bolts on the upper Carriage tight?
4. Is the "X" axis (long) belt correctly threaded through the QuiltMotion Gear box?
5. Is the "X" axis (long) belt correctly aligned and the Tensioner/clamp bolts on the frame tight?
6. Is the QuiltMotion LCD screen securely attached to the sewing machine?
7. Are all cables correctly connected to the Eclipse Control box?
8. Check your encoders, are the cables connected?
9. Are the USB fully inserted into the motor plate? The connectors can be tight and appear fully inserted, but may not make connection.
10. Are the cables securely attached to the carriage with enough slack to enable full motion front-to-back and side-to-side?



For additional installation or product support for
QuiltMotion, call The Grace Company directly at:

1-800-264-0644

www.graceframe.com