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Dear Ansley26 Owner,

Welcome to the TinLizzie18 Family. Since 1948, Bill Floyd has been designing and improving industrial sewing machines. The Ansley26 is one of many specialty sewing machines that he has been instrumental in designing and manufacturing. Now, he is passing down the knowledge, passion and tradition to his son Ernie. Together they are co-owners of the Tin Lizzie 18 L.L.C. Ernie has been in the sewing industry since 1972. In 2005 their shared vision of an affordable long arm quilting machine for the home quilter became reality. Today the TinLizzie18 is in homes all over the world.

The Ansley26 comes with a one year complete warranty. We will always stand behind our product and any warranty issues will be fixed at no charge. Our warranty on parts is five years and covers the sewing machine head, motor, electronics and frame.

Customer satisfaction is our number one goal. If you are not happy then we are not happy. Our dealers are selectively chosen using our criteria of customer service and professional integrity.

Sincerely,

In the photo above is Bill, Shirley, Ernie and Josh Floyd

William Floyd
Tin Lizzie 18 L.L.C.

Ernie Floyd

Joshua Floyd
Warranty

We believe that we have designed and are manufacturing the best long arm quilting machine available. As you unpack your machine be sure to keep the box and packing materials designed to protect the machine during shipping. Should it become necessary for you to return the machine for warranty work please call us for specific instructions for packing and shipping your machine.

- Your Ansley26 has a full labor warranty for one year from the day you receive your machine. We guarantee the machine parts for five years.
- The machine must be cleaned and oiled regularly according to the instructions in this manual. Failure to properly maintain the machine will void this warranty.
- Your Ansley26 must be plugged into a surge protected electrical outlet. We highly recommend using an Uninterrupted Power Supply (UPS) also known as a Battery Backup. This helps to ensure that you are getting a regulated 110 volts into your machine. See photo below of UPS Battery Backup.
- Should we mutually decide that your machine cannot be repaired using normal communications we will arrange for call tags to be sent to you for pick up of the machine.

How to Contact Us

Should you have a problem with your machine, first call the dealer that sold the machine to you. If for some reason your dealer is unable to resolve your concern, please call (801) 255-4130.

This is a photo of the Battery backup which will provide you with the best protection.
Attaching your Thread Stand

**Ansley26** comes with a four spool thread stand which attaches to the left side of the machine. This four spool thread stand has a telescoping thread guide which needs to be raised to it’s highest position when quilting.

On the left side of the machine (when looking from the needle) You will see two screws which hold the thread stand to the machine.

Once you have your thread stand attached to the side of the machine then you can attach the thread tree into the holder on the thread stand.

Simply place the threaded end of the tree into the hole provided and twist into place.
Attaching your Lamp

**Ansley26** comes with a flexible lamp which helps to light your work area. This lamp is shipped with a light bulb and there is a plug that will need to be attached to the end of the cord so that you can plug the lamp into the receptacle located on the top of your power box on the back right side of the machine. The lamp attaches to the machine on the right side in the space provided.

1. Push on the little Silver clip holding the plug closed to open plug.
2. Place the cord in the plug in the space provided.
   
   *Note: wire will pass through the silver tab*
3. Ensure that the cord is laying flat and not crossed in the path provided
4. Close the plug
5. Press hard to ensure that the silver tab locks around the other side.

Your lamp is ready for use.

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**Attaching the Plug**

1. Remove the nut and one washer from the base of the lamp.
2. Feed the cord threw the lamp holder on the right side of the machine (when looking from the needle)
3. Replace the washer and the nut.
4. Tighten the nut so that the lamp stays in place.
5. Trim the cord so that it is long enough to reach the outlet on top of the power box. (this is the box where the power cord plugs in on the same side of the machine as the lamp.)

See attaching the plug below for the next steps
Attaching the Belt Guard

- Remove the three (3) screws with washers (A)
- Place the Belt Guard (B) over the hand wheel and cover the motor pulley
- Replace the three (3) screws with washers to hold belt guard in place.

Replacing the Fuse

- Locate the fuse holder above the power switch and below the power cord outlet.
- Using a small flat tip screw driver gently pop the fuse holder out.
- A spare fuse is held in the holder if you have used this one then you will need to pick up a fuse. They are 3 amp Fast-Acting Glass Fuse or you can use Radio Shack number 270-1054 as a replacement.

Looking at the side of the power box

With the fuse holder pulled out and turn sideways to view the fuses in the holder.
Attaching Handle Bars

The Ansley26DLS comes with two handle bars. One set of handle bars have the controllers connected to them and the other handle bar just has a holder for the LCD screen attached. These handle bars can be connect to the front and the back of the machine. Most people will attach the handle bars with the controllers to the front of the machine as this is where free motion quilting happens the most. If you know you are going to be spending more time at the back of the machine using the laser light and patterns then perhaps you will want your handle bars with the controllers in the back of the machine.

The following steps will help you connect your handle bars to the machine.

![Handle bar with electronics](image1)

![Handle bar without electronics](image2)

![Front location for the handle bar](image3)

![Back location for the handle bar](image4)
Attaching handle bars to the front of the machine

**Step 1** Remove the two screws holding the Handle bar block in place. The top block will come off as you remove the two screws. See figure 1.

**Step 2** Grab the handle bars set you want in the front see figure .2

**Step 3** Position the handle bars centered in the block.

**Step 4** Replace the two screws removed during step 1. Note: Do not tighten until you position the handle bar see figure 3.

**Step 5** When the screws are snug but not tight adjust the handles to where you feel comfortable operating the machine. **Note:** The best place for the handles is to have your arms bent at your elbows so that when the machine is in close to you, your arms are level with the floor.

**Step 6** Tighten the two screws to hold the handle in place. See figure 4.
Attaching handle bars in the back of the machine

Step 1  Remove the two screws holding the handle bar block in the middle of the machine. See figure 1.

Step 2  Grab the handle bar you are going to put at the back of the machine. See figure 2.

Step 3  Position the handle bar centered in the back handle bar block.

Step 4  Replace the two screws you removed in step 1. Don’t tighten until you adjust the handle bar.

Step 5  Adjust the handle bar to your comfort zone.

Step 6  Tighten the screws to hold the handle bar in place. See figure 3.
Connecting your Ansley to your Carriage Assembly (Deck) and Controls on the Handles

TinLizzie18 promises the purchaser of this TinLizzie18 sewing machine to repair or replace any part, at TinLizzie18’s option except exclusions as noted, of this quilting machine which proves to be defective in workmanship or material under normal personal, family, or household use, to the extent here stated. Any cables that the Purchaser needs to connect must be connected with care. Careless connection or disconnection may result in damage to the cables and/or components that the cables are connected to. Such damage is not cover under warranty.

Your Carriage Assembly (Deck) comes with the cable already connected to the encoders on the bottom of the carriage assembly (deck) pieces. This cable are routed to the power box of your machine and plugged into the receptacles on the back of the power box.

Your controller with the LCD screen may be placed on either the right or left side depending on what works best for you. The thumb controller is connected to the LCD controller with the short RJ50 cable and this is plugged into the middle connector. The long RJ50 cable is connected to the left connector and routed along the machine to the main power box and plugged into the top connector on the back side of this box.
What is the Tension Release Lever?

The tension release lever raises the hopping foot and releases the tension on the thread. You can watch the tension disc plates open as you lift the lever.

We recommend that you lift this lever while threading to ensure that the thread goes between the discs for proper tension.

**Never** start sewing with the lever up! This will cause there to be no tension on the thread and you will get loops on the bottom of your quilt.

It is also a good idea to lift this when you are moving the machine from one block or location on the quilt to another location or block to keep the thread from breaking.

How Do I Adjust the Height of the Hopping Foot for Thicker or Thinner Batting?

Simply loosen the screw and adjust the foot to the level that clears the fabric when moving the machine around. You need to have about 1 thin dimes worth of space between the bottom of the foot and the fabric or base of the machine.

You also have the ability to adjust the walking of the machine. The walking of the machine is how much movement is in the foot.
You can adjust the walk of the machine

The walk of the machine is how much the hopping foot moves up and down while quilting.

Step 1  Remove this cover from the right side of your machine.

Step 2  You will adjust the walk by loosing this bolt so that you can move this part up and down.

Step 3  Replace this cover.
Routine Cleaning and Oiling

Routine cleaning and oiling is very important to the longevity of your quilting machine. Brush out the fuzz from around the hook and foot. Change your needle regularly to avoid thread breakage, tension problems and needle breakage. A worn needle can mean skipped stitches, shredded thread and a weakening of the needle itself. These things can lead to stitch quality issues.

Lint has a tendency to build up in the bobbin case. A tiny amount of lint can cause poor stitches. Check the bobbin case each time you change the bobbin to keep it clean. We suggest using a soft bristle brush to wipe out the bobbin case and the bobbin area. Canned air only blows the lint around. By using a soft bristle brush you collect the dust on the brush. Occasionally, place a drop of machine oil on a cotton swab to wipe out the bobbin case.

Keep your table clean of dust and oil. Clean the bars and carriage deck regularly for smooth movement.

Oiling is extremely important to the longevity of your quilting machine. Failure to oil your machine regularly can void your warranty.

The oiling spot marked with red arrow is marked with red paint on your machine. An oil bottle is included with your machine. The oiling spot marked with a blue arrow contains a dip stick. Remove the dip stick by lifting it up with a finger nail or screw driver. Place drops of oil in this hole.

Recommended oiling: After every finished quilt place 3 to 4 drops of oil in the indicated spot. At this time make sure oil is present on dip stick. If not add 3-4 drops of oil in the hole where you removed the dip stick. Run machine to lubricate. For correct oil, when you are out of oil please purchase from your authorized TinLizzie18 dealer.
Bobbin Winder and Bobbins

A bobbin winder is included with your machine. The thread on a properly wound bobbin should be snug and have even layers of thread. A sloppy or mushy wound bobbin will result in poor stitch quality.

How do I wind a Bobbin?

1. Insert an empty bobbin on the bobbin winder spindle.
2. Place a cone of thread on the thread holder.
3. Bring the thread up through the guide above the cone of thread.
4. Insert the thread through the top guide hole then wrap the thread around the tension disk and through the bottom thread guide.
5. Wrap the thread around the bobbin clockwise three or four times
6. Push trip mechanism forward until it snaps into position
7. Bobbin winder will start winding the bobbin once you press the start/stop key. You can quilt while your bobbin is winding. Once the bobbin is full it will stop winding.
8. If you wind your bobbin only (When not quilting) ensure that you do not have thread in the needle to prevent jams. Also remove the bobbin and bobbin case to prevent damage.

The bobbin will fill until the trip mechanism is pushed out by the thread. It will then disengage the wheel. The bobbin should fill to just below the rim. Having the bobbin too full will cause tension problems.

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**Bobbin Fill Mechanism**

This picture is provided for your reference should you need to make an adjustment to your bobbin fill mechanism.

Never adjust unless you are told to do so by our technicians.
Check the tension of the bobbin by holding the loaded bobbin case in one hand. With one hand under the bobbin case, hold the tail of thread and watch as the thread flows out of the bobbin case. A slight bounce should cause the bobbin case to slide down the thread. If the thread slides out of the case as you pick it up, it needs more tension. If it barely moves down the thread or doesn’t move at all, it needs less tension.

Use a small screwdriver to turn the largest set screw on the bobbin case to adjust tension. Make very, very small adjustments. Be very careful not to remove the screw as it is very small and difficult to find if lost. Remember, righty (clockwise) tighty, lefty (counter clockwise) loosey.

To place the bobbin into the machine:
1. Insert the bobbin into the bobbin case.
2. Holding the bobbin case pull the thread through the slot.
3. Draw the thread down and under the spring, making sure the thread is in the highest position of the bobbin case.
4. Place the bobbin case in the machine. Always listen for the pop as it engages in the machine.

We suggest using a soft bristle brush to wipe out the bobbin case and the bobbin area. Canned air only blows the lint around. By using the soft bristle brush you collect the dust on the brush.

Each day before you start quilting, unthread your machine past the take up lever and remove the bobbin case, place a small drop of oil in the bobbin hook area before you begin quilting. This will clean out the fuzz and lint. Place a drop of oil in the bobbin hook area. Turn your machine on to run at the slowest setting.
Adjusting the Bobbin winder lever (amount of fill on the bobbin)

- Using your allen wrench loosen the set screw (A) holding the Bobbin winder Lever (B) in place.  
  **Note:** you do not need to pull the bobbin winder out to adjust this setting.  
- Move the Bobbin winder lever in for less fill and out for more fill.  
- Tighten set screw (A) to prevent Bobbin winder lever (B) from moving.

Adjusting the tension assembly thread guides for proper fill.

- Loosen the set screw (D) so that you can adjust the tension assembly thread guides (E).  Adjust tension assembly thread guides (E) up and down until bobbin fills evenly top to bottom.

Adjusting bobbin winder and contact with the shaft

- Loosen the three (3) screws (A) holding the bobbin winder in place but do not remove them.  
- Twist the bobbin winder (B) to the right for more contact with the inner shaft or move left for less contact.  
  **Note:** when twisting the bobbin winder (B) you need to stand on the side of the machine with the access panel.  
- This needs to touch the disk on the upper shaft but not mash the bobbin winder wheel.

Right will move closer.  
Left will move away.
General operation of the LCD key pad

When you turn on your Quilting Machine you will hear a two (2) beep and after 3 seconds you will hear another beep. This lets you know that your machine is ready. The first screen you see will be Fig 1. (Opening screen will have version number displayed. This is where version is determined.)

The controls are as follows:

This key for decreasing motor speed, stitch length, and selecting modes in menu.

This is the key for going to the menu.

This is the key used to select menu items.

This key is for increasing motor speed, stitch length, and selecting modes in menu.

This key is for putting the needle in the down position.

This key is for starting the machine and stopping the machine. In fig 1 you can see where it shows Stitch OFF. This button will change it to Stitch ON (Note: Quilting Machine will not stitch if you see the word off next to the stitch.) Machine will turn off if no movement is detected after 12 seconds.

This key is for putting the needle in the up position.

Lizzie Stitch (Stitch Regulation)

So you are ready to start quilting. You turned on your machine and waited for the beeps and you see the screen on see in Fig 1. At this point if you want to change the Stitches Per Inch (SPI) then you can press and release the (-) key to decrease the number of stitches or you can press and release the (+) key to increase the number of stitches. (Note: If you press and hold the (-) or (+) keys then you will see the bar graph decrease or increase quicker than if you just press and release the (-) or (+) keys) Once you are happy with the Stitches Per Inch (SPI) then you can press and release the Start/Stop key and the LCD will change to Fig 3. You can see on the LCD that next to the Stitch you see the word ON This means the quilter is ready to quilt and as you move the quilter it will stitch.
Changing Functions

When you are ready to switch stitching modes you will press the (Menu) key. This will bring up the menu to select from. As you can see in Fig 4 There are three options in the menu.

**Stitch:** will let you chose between Lizzie (stitch regulation) and constant (manual stitch).

**Deactivate:** is used to switch between the front handle bars and the back handle bars. (Note: Both handle bars need to be connected when you turn on your machine for this to work. You should never disconnect or reconnect any cables while the power is on.) (Note: rear handle bars with electronics are optional.)

**Diagnostics:** is only used when asked to enter this option when asked to do so by a technician.

Select indicator dash. To move the select indicator dash on the left side of the screen use the (-) key to go down the list and the (+) key to go up the list. To Select function press the (enter) key.

Stitch Mode

Once you have pressed the (enter) key you will be able to choose between the Lizzie (stitch regulation), Constant (manual stitch), Robot (see Fig 5), Idle (stitch regulation no stop), Edge (for use with rulers will stop for a longer period of time.), Tie off up, or Tie off down. (see Fig 5a)

Press the (Enter) key once you have the stitch you would like to use. If you chose Lizzie stitch you will be in the stitch regulation mode of the machine refer back to fig 1 for a look at the LCD when Lizzie is selected and after the stitch is off in this state you can move the machine and it will not stitch. Once you press the (start/stop) key then the machine becomes active refer to fig 3 and you can begin stitching when you move the machine. Remember if the machine shows ON and you do not move the machine for 12 seconds it will change to OFF and you will need to press the (start/stop) key again.

You will also see a bar graph at the bottom of the LCD with SPI on the right see fig 2. This is your stitch per inch indicator. You will use the (-) key to decrease the number of Stitches per Inch and use the (+) key to increase the number of stitches per inch. (note: Pressing and holding the (-) or (+) key this bar graph will move more rapidly across the screen.)
Constant Stitch (Manual stitch)

If you chose Constant you will be in the manual stitch mode of the machine. Fig 6 shows the LCD screen for the Constant. You will notice you have the OFF just like in the Lizzie but you have numbers with percentage at the bottom rather than a bar graph. Same as with the Lizzie the (start/stop) key will turn the machine on and you will be ready to stitch unlike the Lizzie once you hit the (start/stop) key the machine will be sewing. Fig 7 shows with the Stitch ON

Like the Lizzie you can use the (-) or (+) keys to decrease or increase the speed of the machine. Constant does not have a default to turn off once it has been turned on. If you stop moving thread will build up until it runs out of thread or your thread breaks. It will still keep running until you hit the (start/stop) key.

Robot

Robot gives stitch control to the robot. This will let you control the stitching with the Remote control for the Robot.

Idle (stitch regulation without stop)

Idle stitch gives you the stitch regulation as Lizzie once you press and release the start/stop button the machine starts stitching when you come to a stop the needle continues to stitch at a slow speed. This mode allows for ease in and out of corners. Press and release start/stop button and machine will stop.

Edge

Use this stitch mode when working with rulers. See Lizzie Stitch for operation of this stitch. The only difference between the Edge and Lizzie is with Lizzie Stitch when you stop moving for 12 seconds the machine will go off like pressing the start/stop button. Edge Stitch will not stop giving you time to reposition your ruler or template.

Tie off up or Tie off down

These are used in conjunction with the Lizzie Stitch. With Tie off selected you will be able to start or finish your stitching. With the machine not running press the enter key and it will do 3 stitches to tie off your thread. Up will position the needle in the up position while Down will position the needle in the down position.
Deactivate

Deactivate is used when you have the rear handles connected and you want to control the machine from there.

Rear Handle bar with Electronics are Optional.

From the Menu you will move the selection indicator dash on the left side down to deactivate and press the (enter) key. Once you have done this your LCD will look like Fig 9. You now can operate your machine from the rear handles.

Fig 8
Fig 9

Fig 8 shows the right controller as you can see the keys are similar to the keys on the left controller. You can decrease or increase using the (-) or (+) keys. You have Needle up and Needle down. You also have a (start/stop) key
Name of parts for threading your machine

1. Upper Thread Guide  
   (Note: some machines do not have this)  
2. Three hole Thread Guide  
3. Tension Disk  
4. Check Spring  
5. Silver Angle Bracket  
6. Thread Guide  
7. Take up Lever  
8. Thread Guide  
9. Thread Guide  
10. Thread Eyelet Above the Needle  
11. Needle  

(Please note: The takeup lever guard has been removed for this pictures only. Never run the machine without the guard in place, extreme head injury may occur. This guard is not a handle. Do not place you hand in this area, your fingers will get pinched)
How Do I Thread the Machine?

1. Place a cone of thread on the thread holder. Figure 1.

2. Pull thread through eyelet above the cone of thread. Make sure the eyelet is directly above the thread cone. Figure 1.

3. Thread the upper thread guide as shown in Figure 2.

4. Weave thread as shown on three hole thread guide. Figure 3.
5. Take thread between the two tension disks from back to front all the way around. (Note gently floss the thread around the tension disk to ensure that you get the thread between the disks and not on either side.) Bring the thread up and over the check spring. Be sure the thread is going between the disks and go far enough to catch the check spring. The check spring should come down as you pull the thread. Pull thread tightly to ensure the thread is in the tension disk. Figure 4.

6. Thread runs under silver angle bracket. Figure 4.

7. Bring the thread up through the thread guide just above the check spring. Figure 4

8. Take thread through the take up lever from back to front. Figure 5.

9. Bring the thread down through the two thread guides on the left side.

10. Bring the thread through the thread eyelet directly above the needle. Figure 5.

11. Thread the needle front to back. Figure 5.

**Tip:** Use a dental floss threader to thread the guide directly above the needle. The threader will also thread your needle.
How Do I Change the Needle?

A 134RSAN needle (size 18) will be installed on your Ansley26 from the factory. When it is time to replace the needle you can easily install one. Be sure the power switch is off on the machine. Remove the bobbin case.

To remove the needle use the smaller screwdriver included with your machine. Loosen the screw just above the thread guide on the needle bar; the needle should fall out as you loosen the screw. (DO NOT REMOVE THIS SCREW ALL THE WAY)

Look closely at the needle. Your home sewing machine needle shank (top of the needle) has a flat side. The top of the long arm machine needle is round. On the point end of the needle there is a scarf, or notch, in one side. The scarf must face the back of your machine. The long groove at the eye of the needle faces you as you insert the needle.

Why does the scarf go to the back of the machine?

When the needle goes down through the fabric into the bobbin case, the hook comes around behind the needle to pick up the thread. The scarf has to be there to provide a way for the hook to get between the needle and the thread in order to pick up the thread.

Place the new needle up in the slot, making sure the needle is up in the needle bar as far up as it will go. Make sure the scarf is facing the back of your machine. Tighten the screw on the needle bar while holding the needle up.

Before you turn your machine on go to the back of the machine and turn the hand wheel a complete turn making sure the needle goes down in the center of the throat plate and the hook in the bobbin area rotates with the needle smoothly. Put the needle down as far as possible. In the bobbin area, you should be able to see you the eye of the needle. When the hook rotates it picks up the thread at the back of the needle then the top thread pulls the bobbin thread up to create a stitch. The scarf must face the back of your machine.
How Do I Make Adjustments to Make the Perfect Stitch?

Understanding how your long arm machine makes a stitch will help you make the proper adjustments to make the perfect stitch. The technique all long arm machines use to make a stitch is basically opposite of the home sewing machine. The home sewing machine is designed to press together two layers of fabric and sew while the fabric is held in place by the presser foot. Long arm machines are designed to press and sew multiple layers together while the machine head is moving. The difference is that there is practically no needle deflection on a standard sewing machine and a large amount of needle deflection on the long arm. The higher the tension, the more the needle will deflect. Another cause for the needle to deflect on a standard machine is the type of fabric being sewn. A tightly woven fabric tends to force the needle in different directions as it penetrates the fabric. This type of deflection depends greatly on the type of needle and type of point you use, such as a ball point or sharp point.

Needle deflection, what is needle deflection? What causes needle deflection? How is needle deflection related to the stitches on my quilt?

On a long arm quilting machine a stitch is mechanically created the same as a home sewing machine except the quilter is the feeddog moving the machine head over the fabric. The hopping foot presses the fabric together tighter and quicker than a home sewing machine presser foot because the fabric must be able to slide between the foot and the needle plate as the machine is sewing. This means that the machine is moving while the needle is in the fabric. The worst thing for a needle is to be in the fabric while the machine is moving which bends the needle, creating needle deflection.

Good stitches will interlock in the batting between the quilt top and backing. In real life, this goal is rarely achieved. For this reason, you need to be aware that you will have “pokies” if you use different colors of thread on top and in the bobbin. Pokies are where you can see tiny dots of the contrasting thread where the bobbin catches the top thread. If there is slightly more tension on the top than on the bottom, then you will see the pokies on the top side of the quilt. If the greater tension is on the bobbin, then you will see the pokies on the back of the quilt. If the pokies are objectionable to you, use the same color thread on both top and bottom.
Tension, tension, tension…

This probably causes more problems than anything else. You need correct tension on the top and bottom threads but you also must have correct tension on the quilt held between the bars. You should be able to gently rock the belly bar where the backing fabric is attached. This allows enough movement of your quilt layers for the needle to penetrate and make good stitches.

Before you start making adjustments to your machine ask yourself, “What changed?” If your machine was stitching great and all of a sudden it has loopies on the back or puckers, “What changed?” Did you just change the bobbin? Did you just lift the take up bar? Did you lower the take up bar after finishing your last quilt? Did you recently change the needle? Did you just roll the quilt?

If the take up bar with the quilted portion of your quilt is too high, it will result in poor stitch quality. You need a finger tip space between the quilt and the machine bed. Higher will result in poor stitch quality. Lower and the quilt will create a drag on your machine’s movement.

Look at your bobbin, a sloppy wound bobbin will not create a good stitch. Make sure that the threads on the bobbin are snug and evenly wound. Check to see if there is a piece of lint in the bobbin case.

Tension Trouble shooting checklist

• Is the side tension lever down?
• Have I oiled my machine regularly?
• Is the quilt too tight on the frame?
• Is the thread coming off the cone freely?
• Has your thread jumped out of the tension discs?
• Check your threading. Has anything been missed or has the thread flipped itself around something, increasing your tension?
• Is the hopping foot too high or too low?
• Is your take up bar too high? Did you lower the take up bar after your last quilt?
• Do you need to change your needle?
• Is your needle in properly?

Top Thread Breaking

• Check to see that your thread is coming off the spool freely, the thread guide is centered over the spool and has not developed any burrs or catches.
• Check to see if the thread has looped itself around the spool pin.
• Check to see if the needle is in correctly, with the scarf facing the back of the machine.
• Have you recently changed the needle? Is it as high as it will go in the needle bar?

The Stitch Regulator does not keep up with me? Just like driving your car you need to make controlled starts and stops, practice being consistent in your movements.

Eyelashes

Eyelashes on the back of the quilt can be caused by too little top tension. Turn the thread tension disk clockwise ¼ turn. Make small adjustments. Repeat until stitch quality is good. Remember the upper and lower thread play tug of war with each other.

Loose Top Stitch

Is the tension lever handle down? It lowers the hopping foot and applies the tension disk. Is the bobbin thread inserted in the slot of the bobbin case? Adjust the tension disk small turns clockwise. Repeat until stitch quality is good.
Quilt Top Puckers
Is your backing fabric stretched too tight? While the backing fabric needs to lie flat and without wrinkles, stretching it too tight can make the quilt top pucker. After stitching and releasing the backing fabric the top will pucker.

The top tension is too tight. Adjust the tension disc small turns counter clockwise. Repeat until stitch quality is good.

Stitches are Skipped
Skipped stitches leave needle holes without thread while large and small stitches in regulated mode means the encoders are not picking-up the signal of your movements because of lint or thread stopping or slowing the reading.

First, check to see that your machine is threaded correctly. Look at the check spring, does the thread lay in the check spring? When properly threaded the check spring will move up and down as the machine is stitching and the thread is flowing freely.

Check the needle. Be sure it is all the way up into the shaft and the scarf is toward the back. If it has been used for some time, replace the needle. A blunt needle will make a popping sound as it penetrates the quilt sandwich.

Machine Drags Making it Difficult to Move
Check to make sure the quilt on the take up bar is not dragging on the bed of the machine. A finger tip distance between the take up bar and the bed of the machine is all that is necessary. Elevating the take up bar too high can cause loopies on the back. Look for lint or thread that might be snagging as you move the machine.

Difficult to Control the Movement of the Machine
Check for lint or other debris on the track and bars. Sometimes the smallest pieces of thread create the biggest headaches.
Check spring replacement/Tension Knob

Fig 1: Tension Assembly with good spring

Fig 2: Screw on inside of machine loosen only DO NOT REMOVE

Fig 4: Remove assembly from machine. Be careful of release pin (see fig 6)

Fig 5: Machine with tension assembly removed

Fig 7: Loosen screw only DO NOT REMOVE

Fig 8: Remove tension assembly from barrel

Fig 10: Remove spring

Fig 11: Spring Removal

Fig 12: Spring Removed
Fig 13: New Spring, This is what was broken

Fig 14: Insert New Spring

Fig 15: Twist while inserting new spring

Fig 16: New spring in place

Fig 17: Insert the tension assembly back in barrel

Fig 18: Insure that it is all the way in

Fig 19: give the tension assembly a twist until you feel resistance on the check spring

Fig 20: Tighten screw. Make sure pin is still there

Fig 21: Place the assembly back into your machine

Fig 22: Once in, ensure that your check spring is at 11:00 (refer to fig 26 for correct placement)

Fig 23: Press in and notice the tension disk opens

Fig 24: Release and the disk will close; this is the proper place for your tension assembly
Timing between needle and rotating hook

Remove the two needle plate screws from your machine.

You will also need to remove the three Face Plate screws.

Fig 25: Tighten screw on your machine

Fig 26: Tension assembly back in place with new check spring at 11:00

Fig 27: For fine adjustment of check spring insert screwdriver turn clockwise for more tension.
Turn the hand wheel to locate the needle at its lowest position. Note: correct needle position is when you can see a small portion of the eye of the needle. This picture shows correct location.

Loosen Needle bar connecting screw A. This will allow you to raise and lower needle bar for correct location. Note: Check all photos before making any adjustments.

Adjusting rotating hook point timing with needle. Turn the hand wheel counter clockwise to locate needle to its lowest position. At lowest position turn hand wheel to raise needle 2.5 mm (1/8”) Hook point should be just above eye of needle.

This picture shows needle bar and hook point at the proper location, after needle bar rise. Note if hook point is not in this location reference drawing 31. Loosen screw D, there are three screws. At this point the rotating hook can be moved freely on its shaft. To locate proper timing.

When adjusting the rotating hook point timing also note that clearance between notch bottom of needle D and hook point C must be maintained. Hook can not rub against needle. Also see drawing 31 for better view.
Machine will not sew. I cannot turn the hand wheel

No matter how hard you try to keep the bobbin area free of loose threads and lint we sometimes will get a jam. Most jams start with the needle down as the jam is because something gets into the bobbin race. The bobbin race is a part of the bobbin hook which keep the hook rotating smoothly and no wandering as it rotates. 

Don’t panic this can be cleared it just sometimes take some work.

Step 1. Turn the power off

Step 2. Remove the belt guard so that you can get a good grip on the hand wheel.

Normal sew rotation if you are standing at the back of the machine looking at the hand wheel is counter clockwise. If you turn the machine counter clockwise you will force whatever is jamming the machine deeper into the bobbin race.

Step 3. Rotate the hand wheel clockwise to back the jam out of the bobbin race. (This may take some work to get it worked free.)

Step 4. Normally when you get it backed up it will fall out and you will be able to make a full rotation with the hand wheel.

Once it feels free take the needle plate off the machine and give it a good cleaning in the bobbin area. Prior to putting the needle plate back on rotate the hand wheel counter clockwise (normal machine rotation)

While rotating the hand wheel by hand ensure that you have free movement of the machine. If everything is working well you can put the needle plate back on and you will be ready to start quilting again.
Using the LCD controller in the back with the Thumb controller in the front

If you choose to use the LCD controller with the rear handles and leave the thumb controller in the front you will need to move the LCD controller and also reconnect the wires which connect the controllers to the main power supply.

Step 1. Turn off the power to the machine. Using the power switch located next to the power cord on the machine turn the machine off.

Step 2. Starting at the front of the machine disconnect the long RJ50 and the Short RJ50 from the LCD controller.

Step 3. Disconnect the short RJ50 cable from the thumb controller see figure 1.

Step 4. Connect the long RJ50 cable into the thumb controller.

Step 5. Slide the LCD controller from the holder on the handle bar. See figure 2.

Step 6. Moving to the back of the machine slide the LCD controller into the holder on the back set of handle bars. (If you have not yet installed the rear handle bars on your machine refer to page 9) See figure 3.

Step 7. Connect the short RJ50 cable to the LCD using the left plug when looking at the LCD controller.

Step 8. Unplug the long RJ50 cable from the power supply box.

Step 9. Plug the long RJ50 cable into the center plug on the LCD controller.

Step 10. Now plug the short RJ50 cable into the open spot on the power supply box where you unplugged the long RJ50 cable.

You are now ready to power up the machine. You will need to set all your settings here in the back of the machine on the LCD controller.