

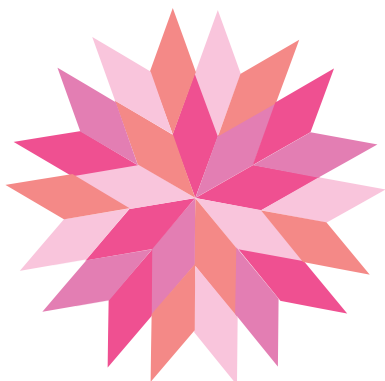
PFAFF®



Power

Performance

Precision



PowerQuilter™ p3

Owner's manual

IMPORTANT SAFETY INSTRUCTIONS

When using an electrical appliance, basic safety precautions should always be followed, including the following:

Read all instructions before using this household sewing machine.

DANGER – To reduce the risk of electric shock:

- A sewing machine should never be left unattended when plugged in. Always unplug this sewing machine from the electric outlet immediately after using and before cleaning.

WARNING – To reduce the risk of burns, fire, electric shock, or injury to person:

- This sewing machine is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the sewing machine by a person responsible for their safety.
- Children should be supervised to ensure that they do not play with the sewing machine.
- Use this sewing machine only for its intended use as described in this manual. Use only attachments or accessories recommended by the manufacturer.
- Never operate this sewing machine if it has a damaged cord or plug, if it is not working properly, if it has been dropped or damaged, or dropped into water. Return the sewing machine to the nearest authorized dealer for examination, repair, electrical or mechanical adjustment.
- Never operate the sewing machine with any air openings blocked. Keep ventilation openings of the sewing machine free from the accumulation of lint, dust, and loose cloth.
- Keep fingers away from all moving parts. Special care is required around the sewing machine needle.
- Always use the proper needle plate. The wrong plate can cause the needle to break.
- Do not use bent needles.
- Do not pull or push fabric while stitching. It may deflect the needle causing it to break.
- Switch the sewing machine off when making any adjustment in the needle area, such as threading needle, changing needle, or changing presser foot, etc.
- Always unplug sewing machine from the electrical outlet when removing covers, lubricating, or when making any other user servicing adjustments mentioned in the instruction manual.
- Never drop or insert any object into any opening.
- Do not use outdoors.
- Do not operate where aerosol (spray) products are being used or where oxygen is being administered.
- Do not unplug by pulling on cord. To unplug, grasp the plug, not the cord.
-

SERVICING OF QUILTING MACHINE PRODUCTS

Servicing of this sewing machine product requires extreme care and knowledge of the system, and should be done only by qualified service personnel. Please contact your authorized dealer for service.

SAVE THESE INSTRUCTIONS

Congratulations!

Congratulations on purchasing your new PFAFF® PowerQuilter™ p3 long arm quilting machine.

As a quilting enthusiast, you have acquired one of the most complete and comprehensive long-arm quilting machines. It will empower you to take your craft to the next level and transform all your creative ideas into reality through the myriad features of the PFAFF® PowerQuilter™ p3.

Before you start, please spend some time reading this owner's manual. You will soon discover how to maximize the use of your machine. Our authorized PFAFF® dealers will of course also be pleased to advise you at any time.

Your PFAFF® PowerQuilter™ p3 long arm quilting machine will definitely enable you to experience a totally new dimension of quilting.



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MACHINE OVERVIEW



Components

1. Needle area
2. Handle bar and screen plug in
3. LED light panel
4. Left handlebar controls
5. LCD touch-screen
6. Thread stand
7. Bobbin winder
8. Hand wheel
9. Power supply
10. Thread guide
11. Right handlebar controls
12. Tension release lever

MACHINE ASSEMBLY

Unpacking the Machine

1. With 2 people place the box on a steady, flat surface. Lift the machine out of the box and remove the outer packaging.
2. Remove all other packing material and accessories.

Note: Install encoders prior to placing machine onto the frame carriage (fig. 1). Once encoders are installed lift machine onto the frame carriage.

Attaching the Encoders to iQuilt™ Frame

With your machine find the two encoders. Each encoder includes a screw and a spacer (fig. 2).

1. Insert bolt into encoder, slide on the spacer.
2. Attach encoder into the pre-drilled hole in the middle of the lower carriage wheel bar (fig. 3)
3. When attaching encoder to carriage ensure that the spring action tab is pulled back so that it is in line with the encoder arm. (fig. 4), tighten bolt to secure encoder to carriage.
4. Place upper carriage on top of lower carriage.
5. On second encoder insert bolt into encoder, slide on the spacer. Attach encoder into the pre-drilled hole in the middle of the left side upper carriage.
6. Attach upper encoder in the same manner as attaching the lower carriage encoder.

Placing Machine onto Carriage

1. Place non-skid mat onto upper carriage.
2. With two people lift machine and place onto upper carriage (fig. 1).
3. Center machine onto upper carriage.



Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 5

Attaching Handle Bars

CAUTION - Unplug the PowerQuilter™ p3 from the electrical outlet. All power to the machine must be turned off when installing the front handle bars. Failure to do so can result in damage to the machine.

1. On the front of your machine there are four screws that the handlebar will attach to (fig. 6).
2. To install handle bars lineup the holes on the handlebar bracket with the pre-drilled holes on the front of the machine. Begin to thread a single screw into one of the holes until it catches, hand tighten screw to secure (fig. 7). Insert and hand tighten the remaining three screws. Using a phillips head screw driver tighten handles securely to machine.



Handle bars



Fig. 6



Fig. 7

Attaching LCD Touch Screen

The Display Screen is your access to running and controlling the functions of your PowerQuilter™ p3. The touch screen connects to the bracket on top of the handle bar.

1. Attach the display screen (fig. 8) to the top center brackets on the handle bars (fig. 9).
2. Remove the two screws on the handle bar bracket to attach the display screen.
3. Mount the screen brackets to outside of the machine upper brackets (fig. 10).
4. Secure the screen with the two screws.
5. Adjust display screen to your visual preference (fig. 11).
6. Remove protective film over screen.



Fig. 8



Fig. 9



Fig. 10



Fig. 11

Connecting Cable Wires

Attaching Screen Display Cables

1. Plug the USB end of cable into the port on the bottom of the screen display (fig. 12).
2. Route the other end of the cable wire under the handlebar and connect by lining up the connector with the port located at the side of machine (fig. 13).



Fig. 12



Fig. 13

Attaching Handle Bar Cables

1. Route the handle bar cable and connect by lining up the connector with the port located at the side of machine (fig. 14).



Fig. 14

Attaching the Cable Cover

1. Locate cable cover (fig. 15).
2. Run the cable wires into lower channel of cover (fig. 16).
3. Carefully tilt the cover into place, ensuring wires remain in the channel and secure with screws provided (fig. 17).



Fig. 15



Fig. 16



Fig. 17

Attaching Thread Stand

Your PowerQuilter™ p3 comes equipped with a 4 spool thread stand. The thread stand can be used to hold additional thread such as; bobbin thread, so you can wind bobbins at the same time you are quilting. It is recommend that the thread stand telescoping pole be extended fully in order for the thread to flow evenly and smoothly.

1. Locate the 2 screws on the machine next to the cable cover. Loosen screws, **but do NOT remove**, so that thread stand can slide over screws (fig. 18).
2. Slide thread stand over the screws and tighten screws to hold stand in place.
3. Place the telescoping thread tree into the hole in the center of the thread stand. Use the supplied screw and washer to secure the thread tree to the underside of the thread stand.
4. Extend the telescoping thread tree to its highest position (fig. 19)



Thread Stand



Fig. 18



Fig. 19

Connect to Power Supply

1. Plug in the power cable to the power outlet located at the back of the machine (fig. 20).
2. Plug in the encoder cables into the identified “encoder” ports located at the back of the machine (fig. 21).



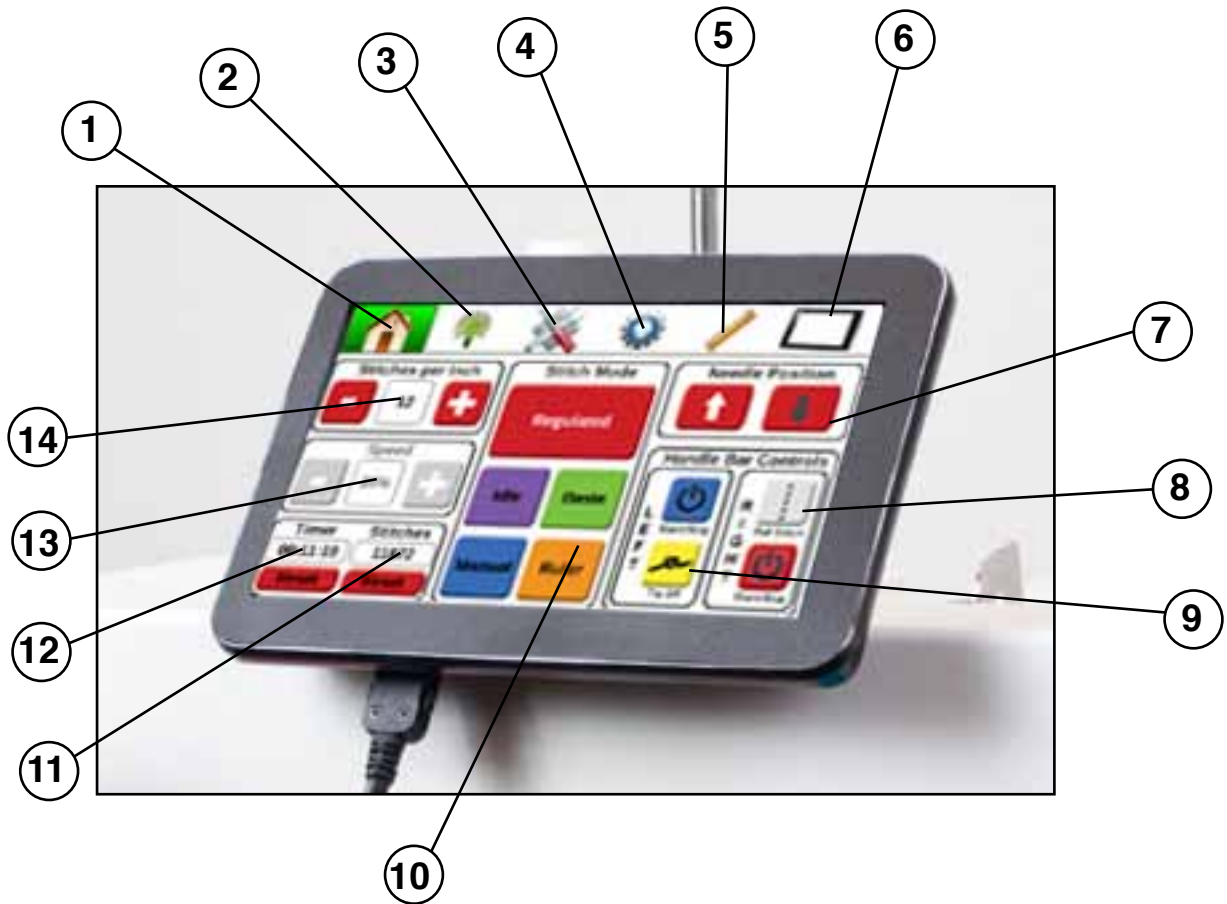
Fig. 20



Fig. 21

GETTING STARTED

Touch Screen Overview



7" LCD Touch Screen

1. Home
2. Lights
3. File Menu
4. Sewing Parameters
5. Ruler Menu
6. Automated Quilter (this feature needs to be purchased)
7. Needle Up/Down
8. Right Handle Bar Control
9. Left Handle Bar Control
10. Stitch Modes
11. Stitch Counter
12. Timer
13. Speed
14. Stitches Per Inch/Stitch Length (Metric Mode)

NAVIGATING THE PowerQuilter™ p3

The PowerQuilter™ p3 has six menu buttons located at the top of the screen. These buttons will navigate you quickly through the menu screens.



Home Menu

Home is the start window for all of the quilting machine stitch modes.

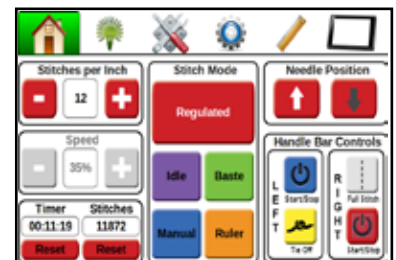
Stitch Mode

There are 5 stitch mode options; Regulated, Idle, Baste, Manual, Ruler. When you press the start/stop icon or press the start/stop button on your handles this is the stitch mode your machine will stitch in. Easily change the stitch mode by selecting the icon for desired stitch mode.



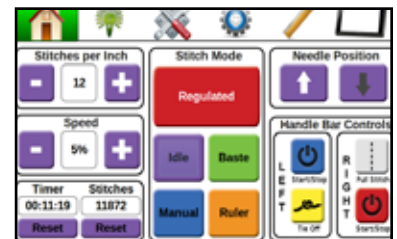
Regulated Stitch Mode

In regulated mode the encoders detect the movement and send a signal to the motor to move the needle up and down. The quilting machine will automatically speed up or slow down based on the movement. When you come to a stop the motor comes to a stop and will wait for you to start to move again. If you wait past a set amount of time, the machine will turn the stitch mode off. Press and release the start/stop on the handles or touch the start/stop icon to begin sewing again.



Idle Stitch Mode

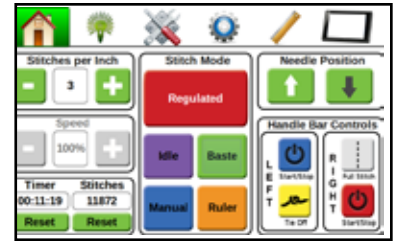
Idle stitch mode is another stitch regulated mode that will adjust the speed of stitching with the movement of the machine. In idle stitch mode, when you stop moving the machine the needle will continue to move up and down. The machine will continue to stitch in the place where it was stopped, press the start/stop button on the handles or touch the start/stop icon on the screen to stop the needle. When in the Idle mode, you can also set the speed at which the needle moves when you are not moving the machine.



Baste Stitch Mode

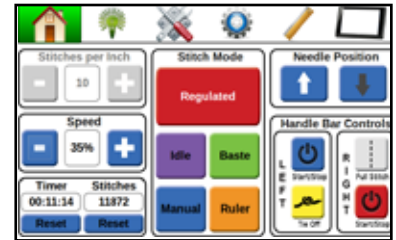
The Baste Stitch allows you to baste the quilt top. Many quilters will baste the top and sides as they start a new quilt. This helps to hold the layers together and stabilize the quilt. The basting stitch is easily removed when the quilt is completed.

Stitches per inch can be adjusted in baste mode within a range of 1 to 3.



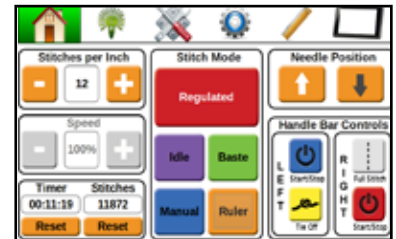
Manual Stitch Mode

When in Manual mode, the needle moves at a constant speed, based on where you have set your speed. The needle will begin to move as soon as you press the start on your handle or touch the start icon on the screen. The needle will not stop until you press the stop on the handle or touch the stop icon on the screen. You will have the best results with this stitch mode if you move the machine at a consistent speed.



Ruler Mode

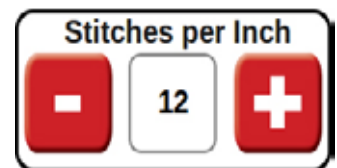
Ruler mode works the same as regulated mode, but gives a longer time without moving the machine before it turns the stitch mode off. This gives you time to move or reposition your ruler without the stitch mode turning off.



Stitches Per Inch

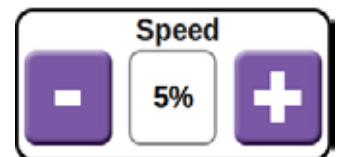
When stitches per inch is activated, you can use this icon to adjust the number of stitches per inch. The range is 1 to 22. Press the +/- symbols to selected desired stitch number.

Note: in baste mode the stitches per inches range is 1 to 3.



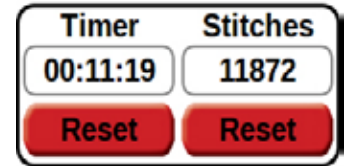
Speed

The speed can be adjusted between 5% and 100% when using the Manual Stitch Mode. Adjusts are made in increments of 5 each time the +/- icon is pressed. In Idle Mode speed can be adjusted between 5% and 30%. In some stitch modes the speed cannot be set and the icon will be grayed out.



Timer

The timer indicates the running time of the machine. You can reset the timer at the beginning of each project or at the end of each sewing session. Press the reset button to bring the counter back to zero.



Stitches

The Stitch Counter counts the number of stitches. Press the reset button to bring the counter back to zero.

Needle Position

The needle up/down icon indicates the position of the needle when the start/stop button is pressed to stop the machine.



Handle Bar Controls

All of the functions listed below can be controlled on the screen or on the handle bars.

Left - Start Stop

Press to start the machine and press again to stop the machine.

Left - Tie-off

Makes a tie off stitch. The number of tie-off stitches can be adjusted in the Sewing Parameters Menu.



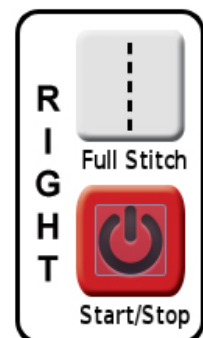
Right - Full Stitch

Moves the needle one full rotation.

This function should be used to pull up your bobbin thread at the beginning and at the end of every pattern.

Right - Start Stop

Press to start the machine and press again to stop the machine.





Lights Menu

Adjusts the brightness of the LED and black lights on your machine. Use the slider bar to adjust the brightness.

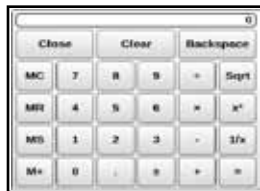


File Menu



Calculator

Works like a regular calculator. Use for design repeats or any other application that requires a calculation.



Advanced



Time Out

This will adjust how long the machine will wait for you to move before it turns the motor off. The range is 5 to 120 seconds and adjust when you touch the + or - icons.



System Information

Displays what software version you are using.



Update Software

When you have new software loaded onto your USB stick you can use this feature to update your system. Frequently check www.pfaff.com for software or machine updates. Detailed instructions will be provided when updates are posted.

System Log

Records any error messages. It is recommended that this feature be used only with a service technician.

Maintenance

Indicates when you should oil your machine and change the needle. Touch the reset button after you have oiled the machine to start the time over. See users guide page 22 for oiling machine.

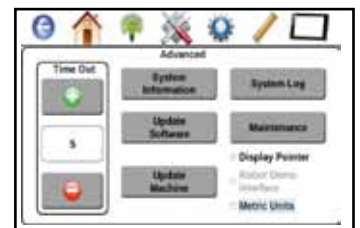


Display Pointer

To display an arrow on the screen for the pointer check the box. To turn off the arrow mode click to remove the check mark.

Robot Interface Demo

To turn on the demo mode for the automation click on the Robot Interface Demo, when you see a check the demo has been activated. Once checked toggle to the Quilt Artist™ II screen and you can see the features of the Quilt Artist™ II. This is a demo version only, Full version is available through purchase, contact your authorized dealer for more information.



Metric

Select the Metric function to change the Stitches Per Inch to Stitch Length on the stitch mode screens. This function will also change the ruler mode from imperial measurements to metric measurements. To change back toggle the Metric button off.

Save Settings

The system will auto save every 5 minutes automatically after the machine boots. If you want your setting to be saved (stitches, run time, etc), go into the file folder and touch "save settings" before powering off.

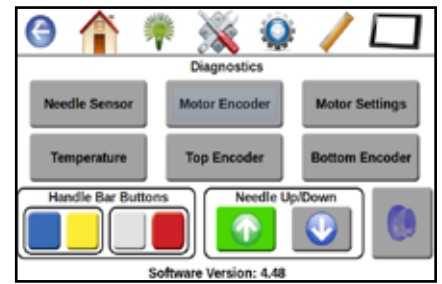


Diagnostics



CAUTION! The following function are for Use with a Service Technician

The Diagnostics screen allows you to check some of the electronics and functions to ensure they are working.



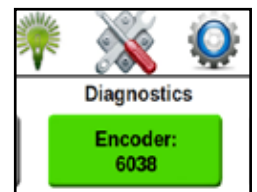
Needle Sensor

When you press the needle up button or needle down button the needle sensor detects the proper position for stopping in right location.



Motor Encoder

When you touch this button it displays a number as you turn the hand wheel on the back of the machine. This number will change, providing information to a service technician.

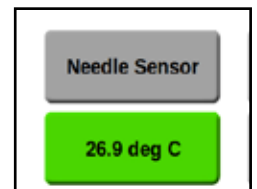


Motor Settings

When you touch this button it brings up a key pad so that a password can be entered to make changes to the Motor settings. This will be under the direction of a service technician .

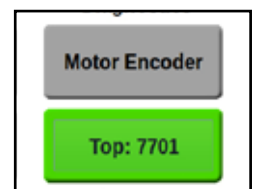
Temperature

Indicates the temperature of the motor.



Top Encoder

When you touch this button, it changes to green and shows you where the encoder is positioned. When you move your machine front to back the number should change. The changing number indicates that the machine is getting the signal from the encoder.



Bottom Encoder

When you touch this button, it changes to green and shows you where the encoder is positioned. When you move the machine left to right the number should change. The changing number indicates that the machine is getting the signal from the encoder.



Handle Bar Buttons

This section will indicate if the buttons on the handle bars are working.



Needle Up/Down

Indicates if the needle up and the needle down are working. When you touch the up arrow the needle will rotate up. When you touch the down arrow the needle will rotate to the down position.



Sewing Parameters



Stop Mode

There are 3 options; Needle Position, Quick and Tie-Off for how the machine can stop when you press the stop button on the handle bars or the stop icon on the screen.

Needle Position

When this button is selected, the machine will position the needle up or down depending on which icon you have selected on the Home screen

Quick

When this button is selected, the machine will stop and the needle will stay where it was located when you pressed the stop on the handlebar or the stop icon on the screen.

Tie Off

When this button is selected, it will do a tie off stitch, then position the needle up or down depending on which needle position you have selected on the Home screen.

Tie-Off Setting

You can adjust how many tie-off stitches your machine is going to stitch when you press the tie-off button on the handles or on the home screen. Press the +/- button to select the number of desired tie-off stitches. The range of tie off stitches is from 3 to 10. If you have selected the tie-off in the stop mode, then your machine will do a tie-off every time you press the stop button on the handle or touch the stop icon on the screen.



Measure Menu

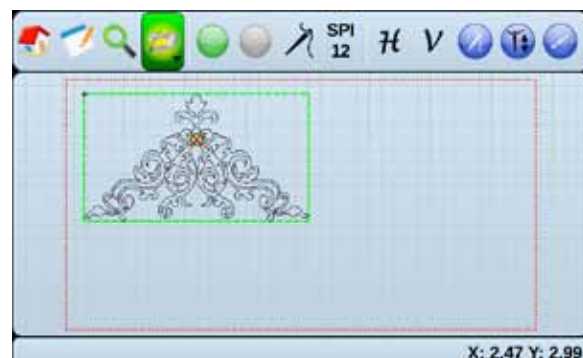
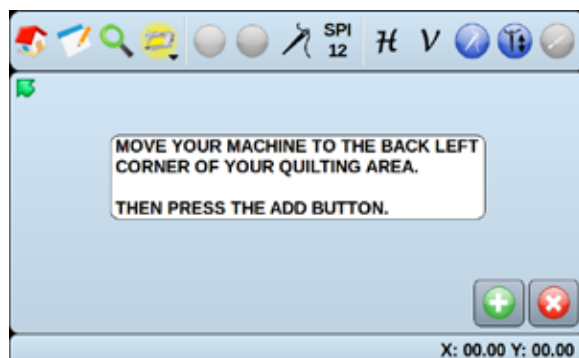
Move your machine to where you want to start the measuring. Touch set start. This button will now change to stop. Move your machine to the finish point of what you want to measure and touch stop. Your distance will be displayed. To display the measurements in metric change the settings in the File Menu - Advanced.



Quilt Artist™ II

If you have checked the Robot Demo Interface in the File Menu, this will toggle to the Quilt Artist demo screen only. If you have purchased and installed the optional Quilt Artist automation system, this will toggle to the active Quilt Artist™ II screen.

To access the Quilt Artist™ II mode on your machine you will need to purchase the Quilt Artist™ II. This will include the motor box, belts and cables to automate your PowerQuilter™ p3 machine. The Quilt Artist™ II automates your machine, allowing you to load a quilting pattern and your machine will automatically stitch it out. Contact your local dealer for details.



UPDATING THE PowerQuilter™ p3

When an update is available for the PowerQuilter™ p3 you will be given instructions at that time. The update and directions would be posted on the www.pfaff.com website. Once you have the update on your computer, you can transfer the files that are needed to a USB stick. Refer to your computers user guide for information on transferring files.

1. Transfer the required files to your USB stick.
2. Place the USB stick into the USB port on your 7" Display screen (fig. 22).
3. On your screen you need to touch the file menu icon.
4. Touch the Advanced button.
5. Touch the Update Software button. Your system will now search the USB stick and update your software for operation of the machine. Be patient while the machine is working.

Note: If the file is not found you will get an error. Check your USB stick on your computer to ensure you have the file correctly transferred.

6. After your software updates, the machine will restart. Once the display screen restarts, you may use your machine.
7. Remove the USB stick.



Fig. 22

USB Port

MACHINE OPERATIONS

Adjusting the Height of the Hopping Foot

The hopping foot can be adjusted if you are using a thicker batting, quilting a quilt with thicker seams, or just need a little more clearance.

Note: Adjusting the foot to high may cause poor stitch quality.

1. Lower the needle into the fabric to get the hopping foot to its lowest position. Lowering the needle close to a seam is recommended so that you can determine the height required to clear the seam.
2. Loosen screw (A) on the side of the hopping foot (B) (fig. 23)
3. Move the foot up or down to adjust for your project.
4. Hold the hopping foot where you want it and tighten the screw back down.

To return to the factory setting, place the needle and the foot in the down position. Place a dime under the foot. Loosen the screw on the side of the foot and slide the foot down until it rests on top of the dime. Retighten the screw (fig, 24).

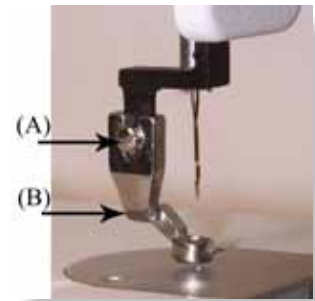


Fig. 23



Fig. 24

Adjusting the Stroke of the Hopping Foot

Factory setting is in the down position.

1. Remove the four (4) screws (A) holding the cover (B) in place front left side of machine (fig, 25).
2. Using a wrench loosen the bolt (C) on the link adjusting crank (D) slide up to increase the stroke, down to decrease the stroke (fig. 26).
3. Use your wrench to tighten the bolt (3).
4. For your safety replace the cover (B) prior to use. Using the four (4) screws (A).



Fig. 25



Fig. 26

Routine Cleaning and Oiling

Routine cleaning and oiling is very important to the longevity of your quilting machine. Brush out the lint from around the hook and foot. We recommend changing your needle every 8 hours of use. A worn needle can cause skipped stitches, shredded thread and poor stitch quality.

Lint has a tendency to build up in the bobbin case. A tiny amount of lint can cause poor stitch quality. Check the bobbin case every 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. We do not recommend using canned air, as it only blows the lint around. By using a soft bristle brush you collect the dust on the brush.

Keep your table clean of dust and oil. Clean the track and carriage wheels regularly with a soft cloth to ensure smooth movement.

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

Recommended oiling:

After every finished quilt place 3 to 4 drops of oil in the hole on the top of the machine indicated with a red circle (fig. 27). The other location is the oil dip stick found on the bed of the machine (fig. 28) near the needle area. Remove the dipstick, make sure oil is present on the dip stick. If not add 3-4 drops of oil where you pulled the dip stick out (fig. 29)

Insert the dipstick, remove and check for oil on the dipstick. Repeat with 3-4 drops of oil until it shows on the dipstick. Run the machine to lubricate. Use a clear high grade sewing machine oil.



Fig. 27



Fig. 28



Fig. 29

Bobbin Winder and Bobbins

A bobbin winder is included with your machine. 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.

To Wind a Bobbin

1. Insert an empty bobbin on the bobbin winder spindle (fig 30).
2. Place a cone of thread on the holder.
3. Place the thread through the guide above the cone of thread (fig. 31).
4. Insert the thread through the top guide hole on the bobbin thread tension, then around the tension disk counterclockwise and through the bottom thread guide (fig. 32).
5. Wrap the thread around the bobbin clockwise three or four times.
6. Push trip mechanism forward until it snaps into position (fig. 33).

Use step 7 if you plan to quilt while your bobbin is winding or use step 8 if you are winding bobbins without quilting.

7. The bobbin winder will start winding the bobbin once you press the start/stop key. You can quilt while your bobbin is winding once it is full it will stop.
8. To wind your bobbin without quilting, remove the thread from the needle. Remove your bobbin and bobbin case from the machine. Select Manual stitch mode on the Home screen. Press the start on the handle or touch the start icon on the screen. Note: The needle will continue to move up and down while you are filling the bobbin.
9. The bobbin will automatically stop when it is full. The bobbin should fill to just below the rim. Having the bobbin too full will cause tension problems. ***Note: the machine will not stop until the stop button is pressed on the handle bar or the stop icon is pressed on the screen.***



Fig. 30



Fig. 31



Fig. 32



Fig. 33

Check Tension

Check the tension of the bobbin by resting the loaded bobbin case in the palm of your hand. Pull 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 (fig 34)



Fig. 34

Adjust Tension

1. Use a small screwdriver to turn the largest set screw on the bobbin case to adjust tension (fig. 35).
2. Make very small adjustments.
3. Be very careful not to remove the screw as it is very small and difficult to find if lost.
4. Remember, right (clockwise) tight, left (counter clockwise) loose.



Fig. 35

Place Bobbin into Machine

1. Insert the bobbin into the bobbin case. The bobbin can be placed into the bobbin case in either direction, but you should be consistent.
2. Holding the bobbin case pull the thread through the slot and under the tension spring.
3. Place the bobbin case in the machine. Always listen for the click as it engages into the machine (fig. 36).

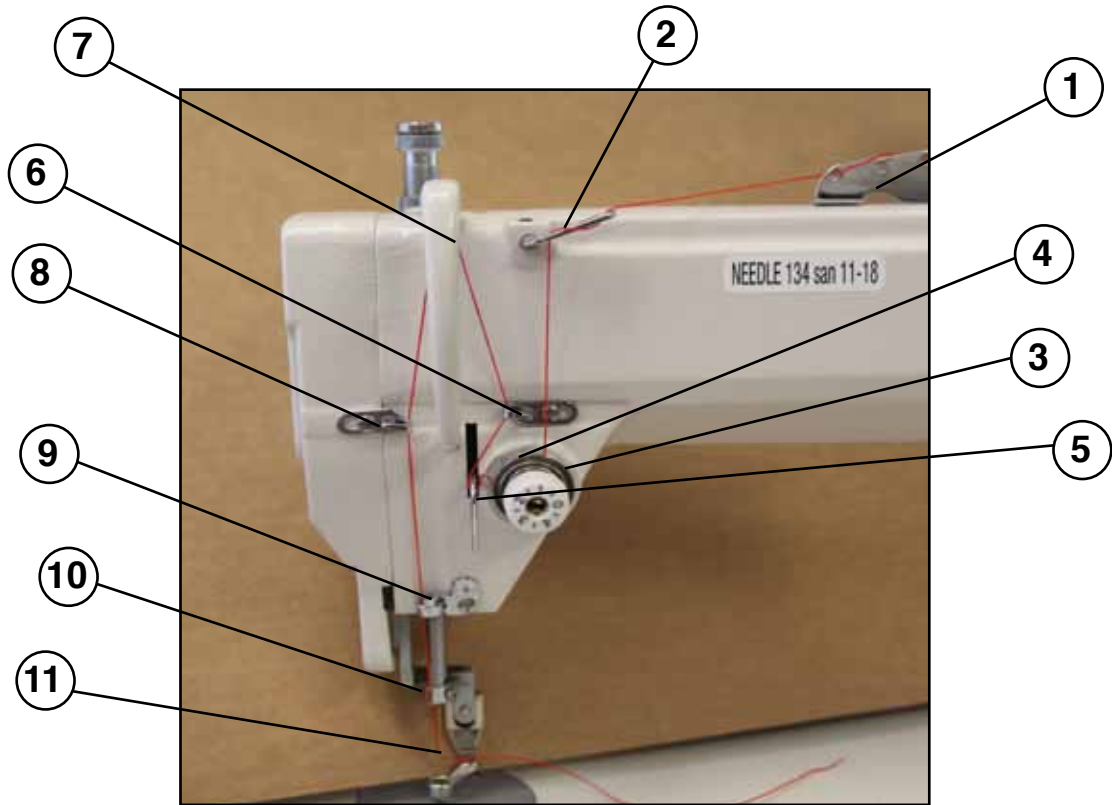
It is recommended to use a soft bristle brush to wipe out the bobbin case and the bobbin area. It is not recommended to use canned air as it will only blow the lint around.

TIP: Lint has a tendency to build up in the bobbin case especially with cotton threads. Check the bobbin case each time you change a bobbin to keep it clean.



Fig. 36

Threading the Machine



1. Upper Thread Guide
2. Three Hole Thread Guide
3. Tension assembly disc
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

Your PowerQuilter™ p3 is capable of sewing with many types of threads. One thing to keep in mind is this machine is an industrial machine, so very light threads will be harder to use than the more traditional machine quilting threads. To use other threads you will need to adjust the tension and slow down.

1. Place a cone of thread on the thread holder.
2. Place the thread in the thread guide directly above the spool of thread (fig. 37).
3. Thread upper thread guide (fig 38) and side thread guide (fig. 39) if you use all three holes it will add drag/tension to the thread.
4. Raise your presser foot. Take thread between the two tension discs from back to front all the way around.
5. While holding the thread up over the top of the tension assembly, hook the check spring. The tension spring should come down as you pull thread downward (fig. 40).
6. Place thread under the silver angle bracket (fig. 41).
7. Bring the thread up to thread guide #6 above the tension assembly. You will be able to slide the thread into this thread guide (fig. 42).
8. Thread the take up lever from back to front (fig. 43).
9. Bring the thread down the front of the machine snapping the thread into thread guide #8 and thread guide #9 on the way down to the needle (fig. 44 & fig. 45).
10. Put the thread thru the Thread eyelet above the needle (fig. 46).
11. Thread the needle from the front to the back of the needle (fig. 47).

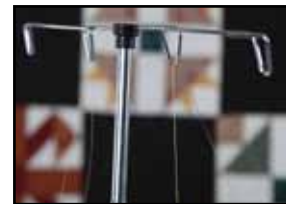


Fig. 37



Fig. 38



Fig. 39



Fig. 40



Fig. 41



Fig. 42



Fig. 43



Fig. 44



Fig. 45



Fig. 46

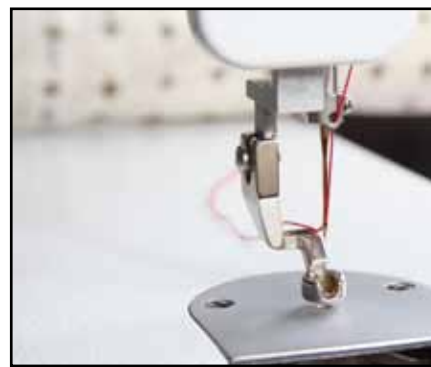


Fig. 47

Changing the Needle

A 134R needle (size 18) will be installed on your PowerQuilter™p3 from the factory. The needle should be changed after every 8 hours of use. It is very important to only use a 134R needle in your machine.

1. Loosen the screw just above the thread guide on the needle bar; the needle should fall out as you loosen the screw.

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.

2. Place the new needle up in the slot, making sure the needle is up in the needle bar as far as it will go. Make sure the scarf is facing the back of your machine and the long groove above the needle eye is facing you. Tighten the screw on the needle bar while holding the needle in place.
3. 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 rotates thru a full stitch smoothly.

TIP: Use the old needle to hold the new needle in place while you tighten the screw. By placing the point of the old needle into the eye of the new needle you can see how straight you are placing the scarf of the needle.

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.

NEVER start sewing with the lever up. Because there is no tension on the thread the bottom stitches will create huge loops.

Top of needle is round. Not flat like on your home needles.

Long groove goes to the front. This is a path for the thread to follow.



Fig. 48



Back of needle has a scarf. This is where the hook passes and picks up the top thread to create the stitch.

Fig. 49



Fig. 50

Calibrating the Screen

If your screen needs to be calibrated because when you touch it nothing happens take the following steps.

1. Place the USB stick into your computer.
2. Go to *www.pfaff.com*.
3. Select Quilting, PowerQuilter™ p3.
4. On the right side menu select “Calibrating Your Screen”
5. Download file reset.cal to the USB stick.
6. Safely remove the USB stick from your computer after the file has downloaded.
7. Power on the quilting machine.
8. Plug the USB stick into the USB port located on the left side of the LCD screen (fig. 51).
9. The quilting machine will begin to read the file and it will start the calibration.
10. Follow the instructions on your screen to calibrate your screen.
11. The quilting machine will restart, once the machine has booted back up the screen will be calibrated.
12. Once the calibration is complete the file reset.cal will automatically be removed from the USB stick.



Fig. 51

USB Port

TIPS & TROUBLESHOOTING

Achieving good stitch quality

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 different than 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 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.

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.

TIP: A general rule of thumb is that if the stitch looks bad on the top it is the bottom tension. If the stitch looks bad on the bottom it is the upper tension. The upper and lower threads play tug of war with each other.

Tension

You need correct tension on the top and bottom threads, but you must also have correct tension on the quilt held between the rails. You should have a small amount of “sag” in your fabric. 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 rail? Did you lower the take up rail after finishing your last quilt? Did you recently change the needle? Did you just roll the quilt?

If the take up rail 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, too low 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 presser foot lever down?
- Have I oiled my machine?
- 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?
- Is the hopping foot too high or too low?
- Is your take up rail too high? Did you lower the take up rail after your last quilt?
- Do you need to change your needle?
- Is your needle in properly?
-

Top Thread Breaking

- Check that your thread is coming off the spool freely and that it is threaded thru the thread guide directly above the spool of thread.
- 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?

Eyelashes

- Eyelashes on the back of the quilt can be caused by too little top tension. Turn the thread tension disk clockwise 1/2 turn.
- Repeat until stitch quality is good. Remember the upper and lower thread play tug of war with each other.

Loose Top Stitch

- Is the presser foot lever down? It lowers the hopping foot and engages the tension disk.
- Is the bobbin thread inserted in the slot of the bobbin case?
- Adjust the tension disk 1/2 turn 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 when you release the backing fabric.
- The top tension may be too tight. Adjust the tension disc 1/2 turn counter clockwise. Repeat until stitch quality is good.

Skipped Stitches

- In skipped stitches, the needle penetrates the fabric, but does not form a stitch.
- 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 more than 8 hours, replace the needle.
- Check that your fabric is not rolled too tight on the rails. You need a small amount of “sag” in your fabric.
- Check that the height of your foot is set correctly.
-

Long Stitches

- Long stitches are different than skipped stitches. With long stitches the needle is not penetrating the fabric, but rather traveling too far before the needle goes down again, forming a stitch.
- In regulated mode, this is almost always a problem with the encoders. Check both encoders to make sure they are rolling smoothly on the track and are free of dust, lint, or threads. Make sure they are securely plugged into the back of the machine.
- Check that your track is clean and free of dust, lint or threads.
- Make sure you have oiled your machine recently.
- In manual mode, you may need to either increase the speed on the Home screen or drive the machine slower.

Machine Drags Making it Difficult to Move

- Check to make sure the quilt on the take up rail is not dragging on the bed of the machine. A finger tip distance between the take up rail and the bed of the machine is all that is necessary. Elevating the take up rail too high can cause loopies on the back of the quilt.

Difficult to Control the Movement of the Machine

- Check for dust, lint or thread on the track and wheels. Sometimes the smallest pieces of thread create the biggest problems.

Cannot Turn Hand Wheel

No matter how hard you try to keep the bobbin area free of loose threads and lint, you may get a jam. It is usually caused from a piece of thread that is caught in the bobbin area.

1. Turn the power off.
2. Remove the bobbin case.
3. Standing behind the machine, facing the hand wheel, rotate the hand wheel clockwise to back the jam out of the bobbin race. (This may take some work to get it worked free.)
4. Normally when the thread is dislodged you will be able to make a full rotation with the hand wheel.
5. Clean the bobbin area with a soft brush.

WARRANTY

PowerQuilter™ p3 long arm quilting machine Warranty Statement.

SVP Worldwide Inc. warrants the PFAFF® PowerQuilter™ p3 to be free of defects in material and workmanship for a period of five (5) years covering parts and one (1) year labor from the date of original purchase. Proof of purchase required.

During the first year you should return the PFAFF® PowerQuilter™ p3 with this warranty, to the store where the machine was purchased. In the event that you move your residence after the date of purchase, and your residence is more than 50 miles from the place of purchase, or if you are seeking warranty work more than one year after the date of purchase, the PFAFF® PowerQuilter™ p3 should be returned with this warranty to the nearest authorized PFAFF® dealer.

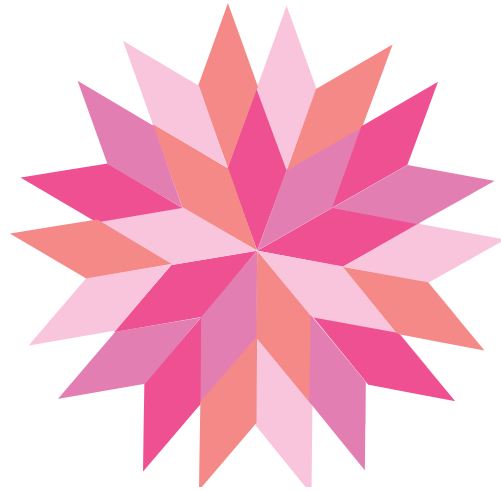
This warranty does not apply to any product that has been damaged through electrical power surges, alteration, mishandling, misuse, neglect, or acts of nature. The extent of SVP Worldwide liability under this warranty is limited to the repair or replacement provided above and in no event shall the company's liability exceed the purchase price paid by the purchaser for this product.

This warranty is made only to the purchaser who acquires this PFAFF® PowerQuilter™ p3 for his or her own use from an authorized PFAFF® dealer.

Purchase/Product Information:

Date of Purchase: _____

Serial #: _____



PowerQuilter™ p3