

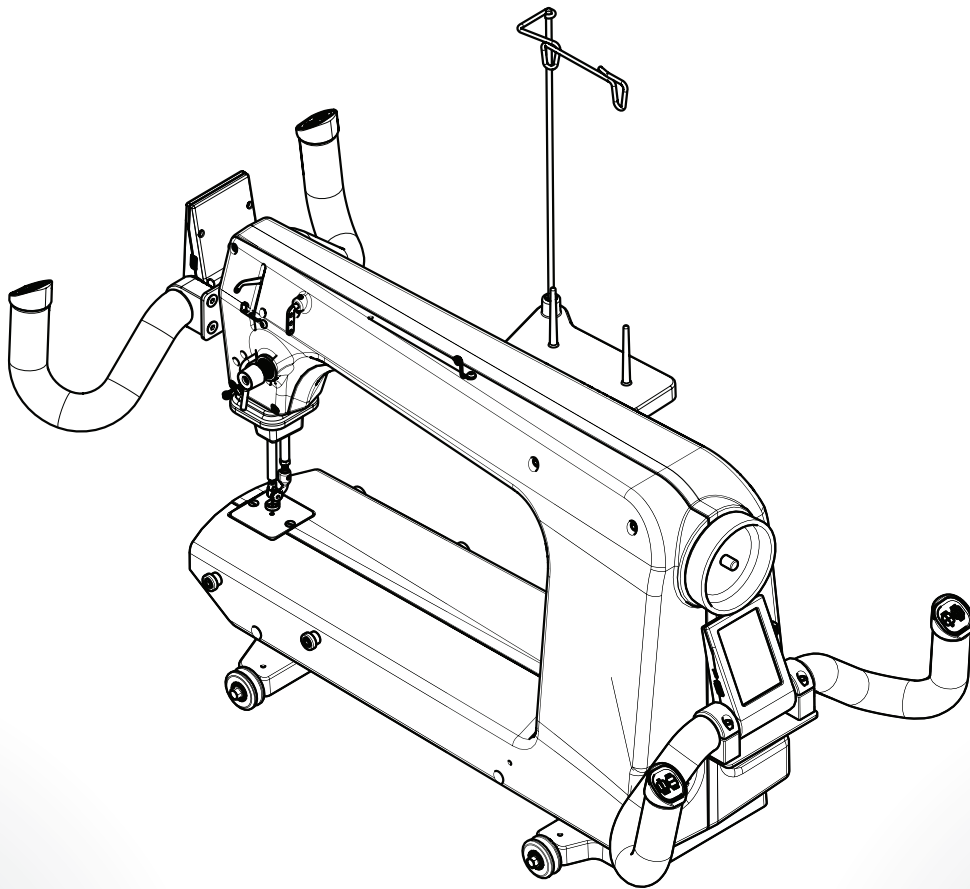
JANOME

Quilt Maker Pro 16™

USER MANUAL

Version 1.0

— Janome America —



Quilt Maker Pro

How to Use This Manual

Notes, Important Notes, and Cautions

-  **NOTE:** A NOTE indicates important information that helps you make better use of your Janome product.
-  **IMPORTANT:** An IMPORTANT note provides information that is essential to properly using your Janome product.
-  **CAUTION:** A CAUTION indicates a potential for causing harm to your quilting machine, the quilt, or to yourself.

Finding Information

What are you looking for?	Find it here
Safety information	User manual
Regulatory information	User manual
What’s included with your machine	User manual
Machine specifications	User manual
Frame setup information	User manual
Machine setup information	User manual
Overview of your machine	User manual
How to thread your machine	User manual
Needle system for your machine	User manual
Basic maintenance	User manual
Troubleshooting	User manual

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01/2019

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Congratulations On Your Purchase!

You haven't just purchased a quilting machine, you've joined the Janome family and we welcome you. You have acquired the easiest-to-use quilting machine available in today's market.

Janome is committed to innovation, reliability, customer service, and education. We are committed to your quilting success.

Keep the carton and packing materials. You will need them if you need to return the machine to the dealer or send it for repair. If you don't pack the machine properly or if you don't use the correct packaging materials, the machine could be damaged. Janome is not liable for damage that occurs during return shipping.

- 🔊 **IMPORTANT:** These packaging materials are designed to prevent the machine from being damaged. Keep them in case you need to bring this machine to the dealer or send it for repair.

What's Included With Your Machine

- Lint brush
- Bobbins (4 pieces)
- Needle (134 MR) size 16 (pack of 10)
- Needle (134 MR) size 18 (pack of 10)
- Bobbin Case
- Thread mast with spool tray
- EZ Pen Oiler
- Screwdriver
- Power Cord
- 2.5 mm hex tool
- 3 mm hex tool
- 8 mm wrench
- User Manual
- Open-toe (Ruler foot installed)
- Bobbin Winder and accessories (bagged together)
- Quilt Maker Pro 16 Quilting Machine (including carriage, front handlebars, front display, and cables)

Important Safety Information

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. See the full Declaration of Conformity in the Appendix.

- ➡ **IMPORTANT:** Do not operate your Quilt Maker Pro 16 quilting machine until you have completely read the information contained in this manual. Please keep all packaging and order information for warranty purposes.

IMPORTANT SAFETY INSTRUCTIONS

Read all instructions before using this machine.

When using this machine, basic safety precautions should always be followed, including the following:

DANGER — To reduce the risk of electric shock:

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

WARNING — To reduce the risk of burns, fire, electric shock, or injury to persons:

- The Quilt Maker Pro 16 is heavy. Never attempt to lift it alone. Always use two people when lifting. Always lift from the throat of the machine, not from the handlebars.
- Always unplug the Quilt Maker Pro 16 from the electrical outlet when performing any maintenance, changing the needle, removing thread locks, or when left unattended.
- Do not unplug by pulling on cord. To unplug, grasp the plug, not the cord.
- Keep fingers away from all moving parts. Use caution around the needle or sharp external components.
- Change the needle often. Do not use bent or dull needles. "Every quilt deserves a new needle".
- Switch the machine to the symbol off, or 0, position to turn it off when making any adjustments in the needle area, such as threading needle, changing needle, threading bobbin, changing hopping foot, and so forth.
- Never drop or insert foreign objects into any opening.
- The Quilt Maker Pro 16 should only be used indoors away from moisture.
- The Quilt Maker Pro 16 should not be stored or used in extreme temperatures.
- Use the Quilt Maker Pro 16 only for its intended use as described in this manual.
- To disconnect from the wall outlet, push the switch to the off position, then remove the plug from outlet pulling from the plug, not the cord. Never operate the Quilt Maker Pro 16 if the cord is damaged or not working correctly. If a mechanical or electrical problem is encountered, return the Quilt Maker Pro 16 to the nearest authorized service center or the manufacturer for examination, repair, electrical or mechanical adjustment.
- It is not recommended that the Quilt Maker Pro 16 quilting machine be used with any machine quilting frame other than those recommended by Janome.

- Use this quilting machine only for its intended use as described in this manual. Use only attachments recommended by the manufacturer as contained in this manual.
- Never operate the machine with any air openings blocked. Keep ventilation openings of the machine free from the accumulation of lint, dust, and loose cloth.
- Do not operate where aerosol (spray) products are being used or where oxygen is being administered.
- Do not pull or push the machine across the fabric excessively while stitching. It may deflect the needle enough to cause it to break.
- Use only needles designed for free motion quilting and recommended by Janome for this machine. Other types of needles may break during normal quilting.
- Children shall not play with the machine. Close attention is necessary when this machine is used by or near children.
- This sewing machine may be used by children age 8 years and above and persons with reduced physical, sensory, or mental capabilities or lack of experience and knowledge, if they are instructed concerning the safe use of the machine, understand the hazards involved, and are supervised.
- Cleaning and user maintenance shall not be made by children without supervision.

Save these instructions.

This machine is intended for household or commercial use.

Disclaimer

Janome and its Representatives are in no way legally responsible or liable for damage to the Quilt Maker Pro 16 when used improperly or not in accordance with the guidelines stated in this manual or when used on machine quilting frames not recommended by Janome.

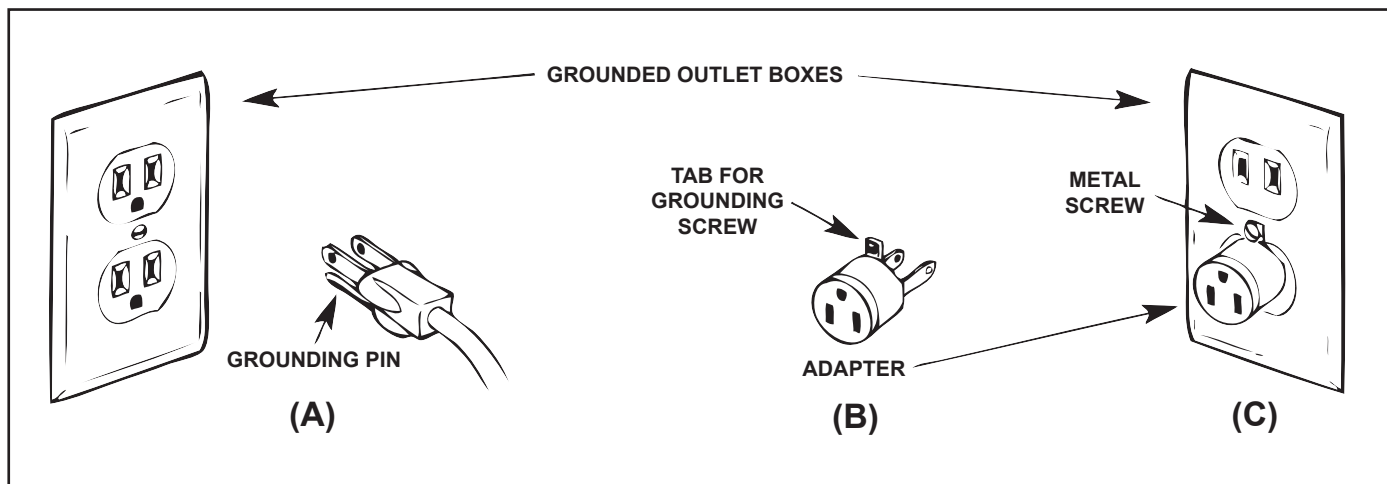
To use the machine safely

1. Carefully watch the needle when sewing. Do not touch the hand wheel, take up lever, needle, or other moving parts.
2. Turn the machine off and unplug the cord in the following cases:
 - when you have stopped using the machine
 - when you replace or remove the needle or any other part
 - when you check or clean the machine
 - when you leave the machine unattended
3. Connect the machine directly to the wall outlet or to a surge protector that connects directly to the wall outlet. Do not use extension cords.

To increase the life of your machine

1. Do not store this machine in areas exposed to direct sunlight or high humidity. Never use or store the machine near a heater, an iron, a halogen lamp or other hot things.
2. Use only neutral soaps or detergents to clean the machine. Benzene, solvents and scouring powders can damage the case and the machine and therefore should never be used.
3. Do not drop or bump the machine.
4. Always consult the manual to replace or fix the hopping foot, needle or any other part of the machine. If necessary contact an authorized Janome representative or Janome technical support.

Optional U.S. Grounding for Customers with 120 VAC Connections



This product is for use on a nominal 120 V or nominal 220 V circuit, and has a grounding plug that looks like the plug illustrated in sketch A above. A temporary adapter, which looks like the adapter illustrated in sketches B and C, may be used to connect this plug to a 2-pole receptacle as shown in sketch B if a properly grounded outlet is not available. The temporary adapter should be used only until a properly grounded outlet can be installed by a qualified electrician. The green colored rigid ear, lug, and the like, extending from the adapter, must be connected to a permanent ground such as a properly grounded outlet box cover. Whenever the adapter is used, it must be held in place by the metal screw.

➡ **IMPORTANT:** In Canada, the use of a temporary adapter is not permitted by the Canadian Electric Code.

To repair or adjust the machine

If the machine breaks down or needs adjustment, first check the troubleshooting chart in the appendix to inspect and adjust the machine yourself.

For more product information and updates, visit our website at www.janome.com.

The contents of this manual and product specifications are subject to change without prior notice.

About Your Machine

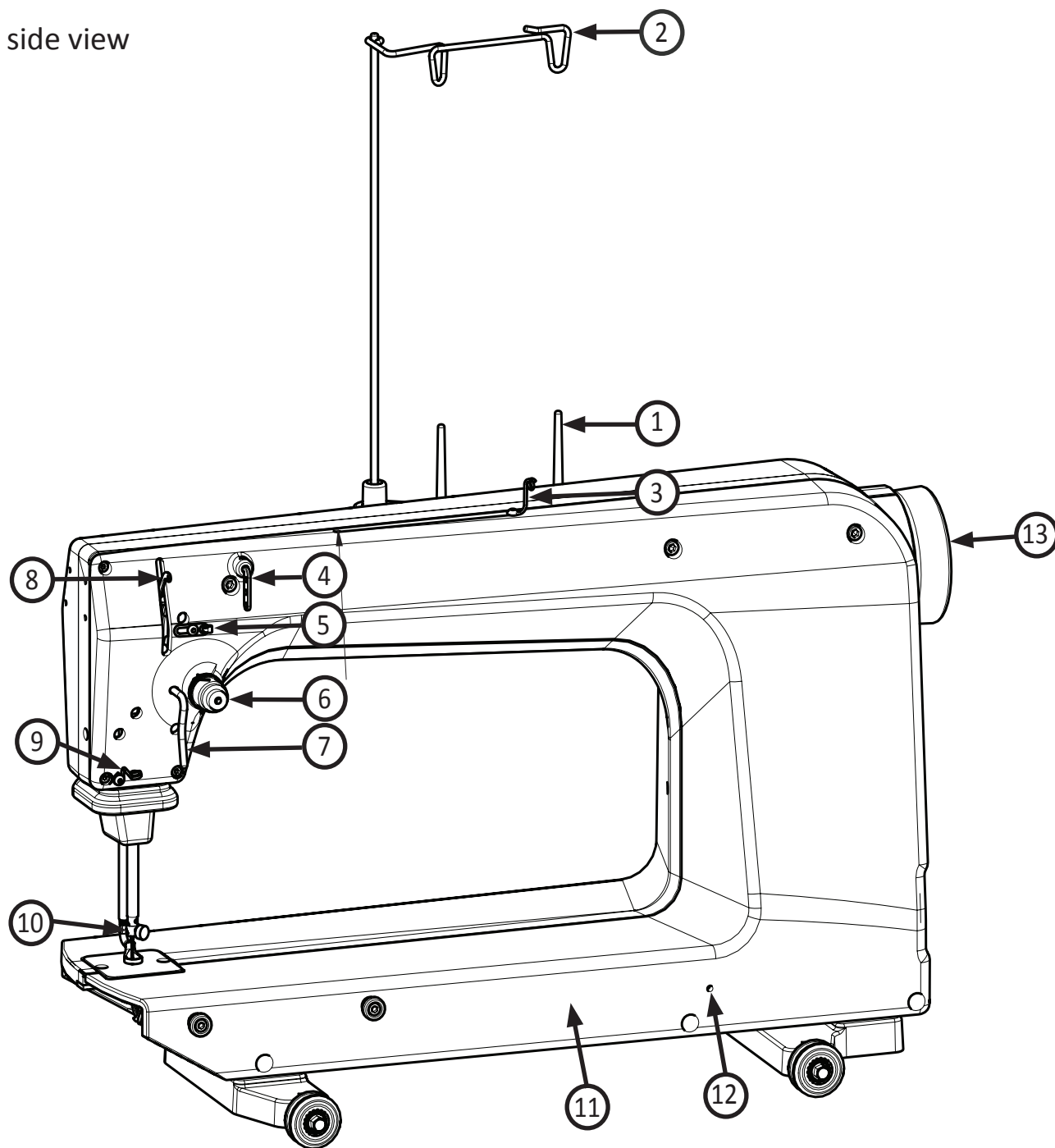
General Specifications

The Quilt Maker Pro 16 uses high-tech electronics and an innovative touch-screen user interface to offer greater functionality and ease of operation to home quilters than ever before conceived in the quilting industry. The Quilt Maker Pro 16 quilting machine is a high quality machine that both incorporates robust design features and is easy to service.

Sewing Opening Dimensions	8.25 inches X 16 inches (245 mm X 610 mm)
Sewing Speed	Manual Mode: from 25 stitches per minute to 1800 stitches per minute Regulated Mode: from 0 stitches per minute to full speed
Stitches Per Inch	4 stitches per inch to 18 stitches per inch
Needle System	134 (135 X 7)
Needle Sizes (recommended)	From 80/12 to 125/20
Hook System	Rotary, Horizontal Axis, M-class bobbin
Bobbin Type	Aluminum, Class M
Bobbin Case	Type MF
Motor Type	Brushless DC
Needle Positioning	Up and down, walking stitch
Electrical Power	
US/Canada*:	105 – 120 VAC, 47-63Hz, 300W peak
Rest of world:	100 – 250 VAC, 47-63Hz, 300W peak
	* Complies with international certifications
Sew Foot Stroke/Lift	5 mm
Needle Bar Stroke	35.3 mm
Take-Up Stroke	73 mm
Lubrication, main components	Kluber Lube, permanent
Lubrication of hook	Velocite 10, Texaco 22

Get to Know Your Quilt Maker Pro 16

Right side view



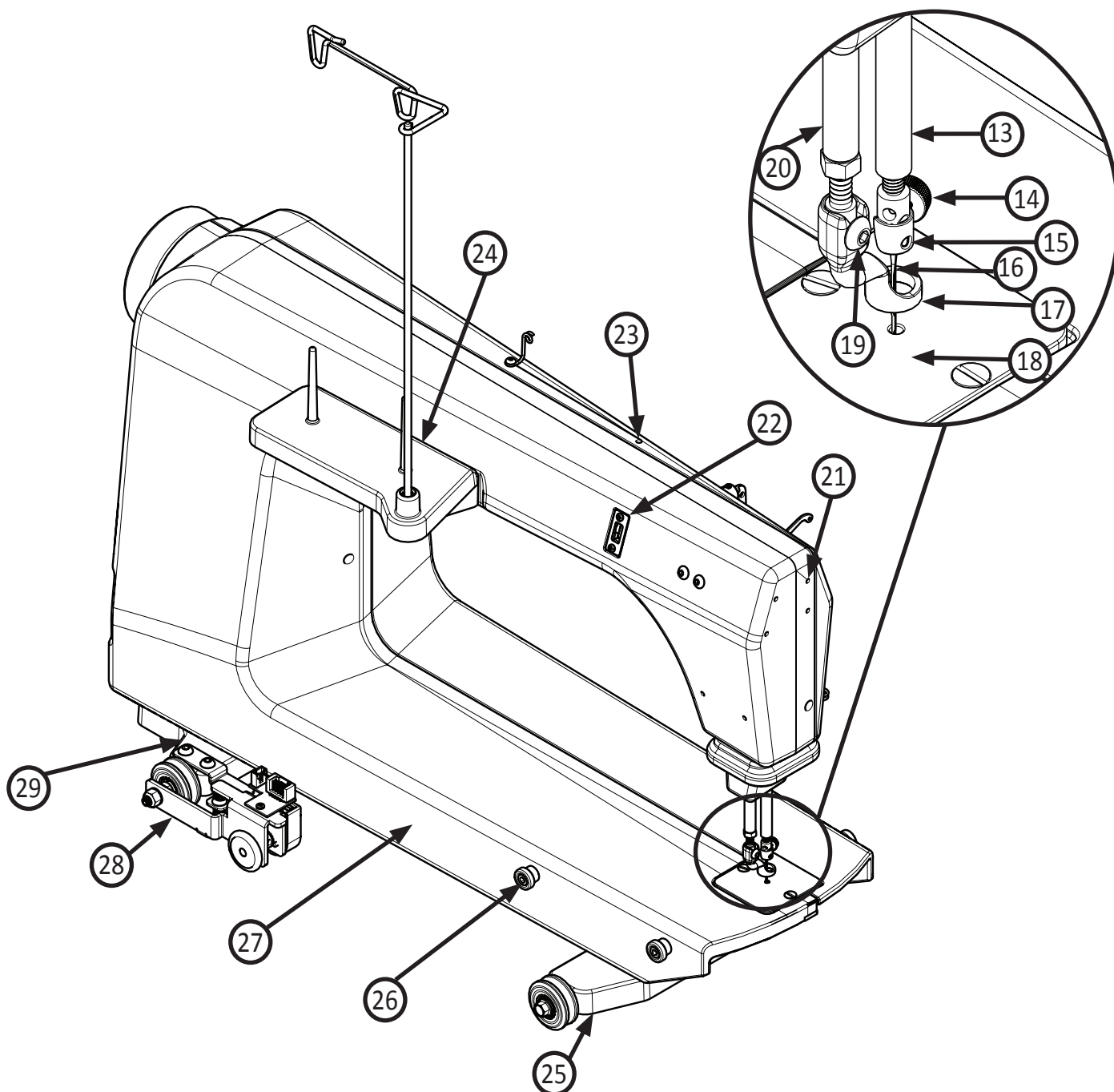
1. Spool Pin
2. Thread Mast
3. Thread Guide A
4. Three-Hole Thread Guide B
5. Thread Guide C
6. Top Thread Tension Assembly D
7. Stirrup Thread Guide E

8. Take-Up Lever
9. Thread Guide F
10. Needle Bar Thread Guide
11. Front Casing/Frame
12. Side Laser Stylus Post Hole
13. Hand Wheel

Left side view

- 13. Needle Bar
- 14. Needle Bar Clamp Screw
- 15. Needle Bar Thread Guide
- 16. Needle
- 17. Ruler Foot
- 18. Needle Plate
- 19. Sewing Feet mount
- 20. Presser Bar
- 21. Front Threaded Display Mounting Holes

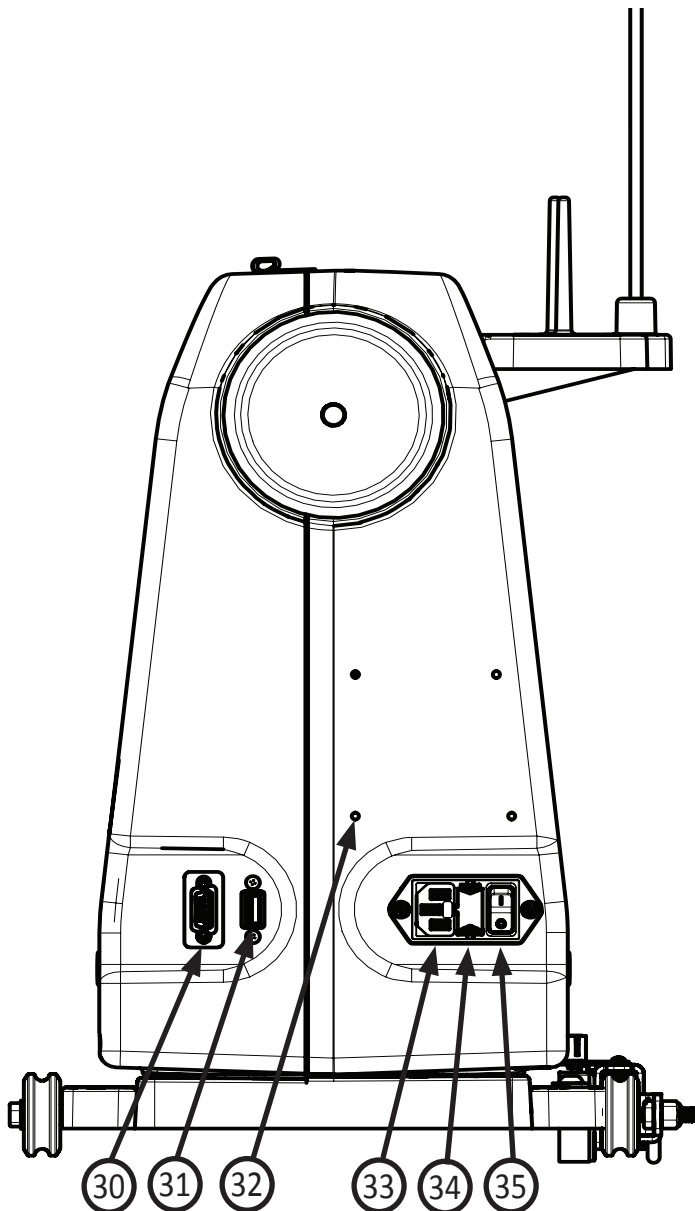
- 22. Color Touch-Screen Display Connector
- 23. Threaded Horizontal Spool Pin Mounting Hole
- 24. Spool Support
- 25. Front Base
- 26. Ruler Base Post
- 27. Back Casing/Frame
- 28. Machine Stitch Regulation Encoder
- 29. Rear Base



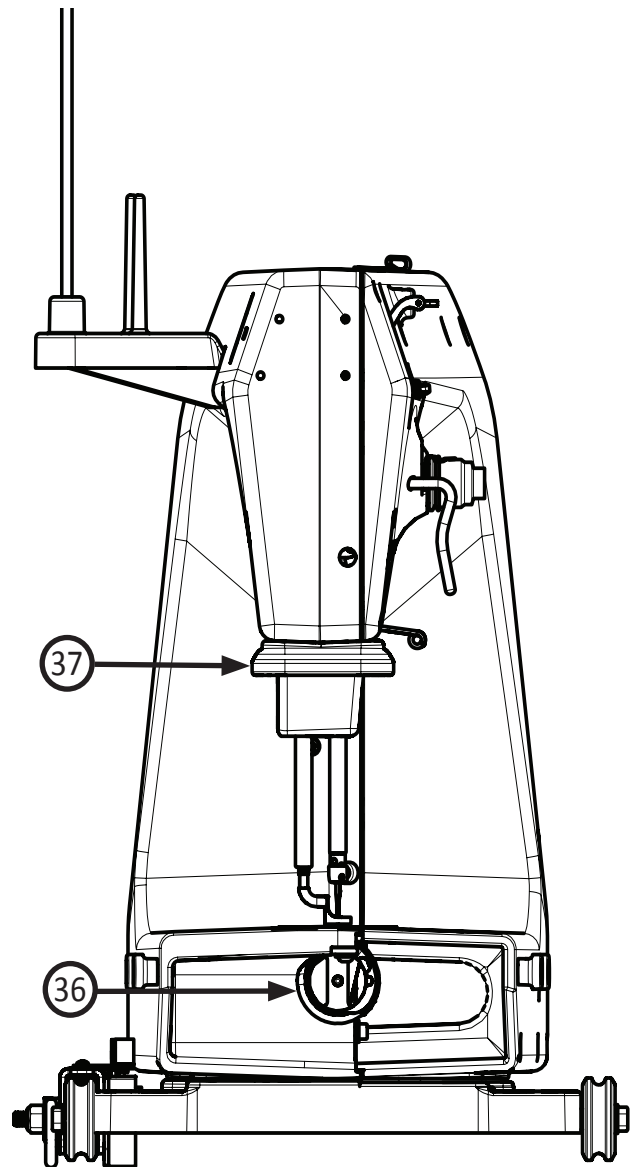
Rear and Front Views

- 30. Serial Port for Stitch Regulator
- 31. Rear Handle Bar Serial Port
- 32. Rear Threaded Handle Holes
- 33. Power Cord Connector

- 34. Fuse Holder
- 35. On/Off Switch
- 36. Bobbin Assembly
- 37. LED Light Ring



Rear



Front

Installation and Setup

Carriage

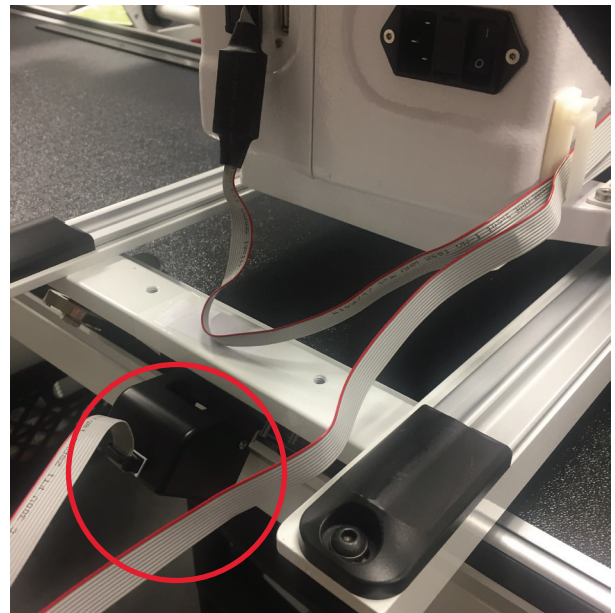
You should have already set up the Janome Quilt Maker Pro 5' Quilting Frame™. Refer to the frame manual for detailed instructions about setting up the frame.

To install the carriage and machine on the frame

1. Place the carriage on the table rails, ensuring that the carriage stitch regulation encoder faces the back of the frame.
2. Place the machine on the carriage.

△ **CAUTION:** The Quilt Maker Pro 16 is heavy. Never attempt to lift it alone. Always use two people when lifting. Always lift from the throat of the machine, not from the handlebars or needle bar.

3. Plug the end of the single ribbon cable from the machine stitch regulator encoder connector at the back of the machine into the stitch regulation encoder on the carriage.



✎ **NOTE:** The 9 pin cable plugs into a serial connector socket on the back of the machine (see item 30 on the previous page). The ribbon cable then runs to the machine encoder on the right rear wheel of the machine. The Y connection plugs into the machine encoder. Lastly the single end of the ribbon cable runs to the carriage encoder.

➡ **IMPORTANT:** If you ever need to remove the machine from the carriage, disconnect the ribbon cable from the stitch regulator at the back of the carriage. Failure to unplug the cable when removing the machine from the carriage could result in damage to the cable, encoders, and carriage.

➡ **IMPORTANT:** The connector is keyed to ensure correct alignment. Make sure the keyed portion of the cable connector aligns with the keyed portion of the encoder connector. Do not force.

Power Cord

To install the power cord

- Insert the cord into the power connector on the rear of the machine. Plug the three-prong end into power source. Do not turn on the machine until the front handlebars and display are installed.

To disconnect the power cord

- Unplug the cord from the power outlet.

For more information, see *Power Switch* in the *Using Your Machine* section of this manual.

 **NOTE:** Make sure that the machine is off before plugging into power source. The rear power switch should be in the 0, or off, position.

Handlebars and Display

 **CAUTION:** To prevent any electrical damage to the handlebars, always turn off all power to the machine when connecting or disconnecting the handlebars.

To install the handlebars

1. Ensure that the machine is unplugged from the electrical outlet.
2. Locate the four M4 X 16 socketed cap screws and the 3mm hex tool. Line up the four holes on the front handlebar bracket with the tapped holes on the front of the machine.
3. Start all four screw into the frame before tightening the screws.
4. Use the included 4 mm Hex tool to securely fasten the handles to the front of the machine.

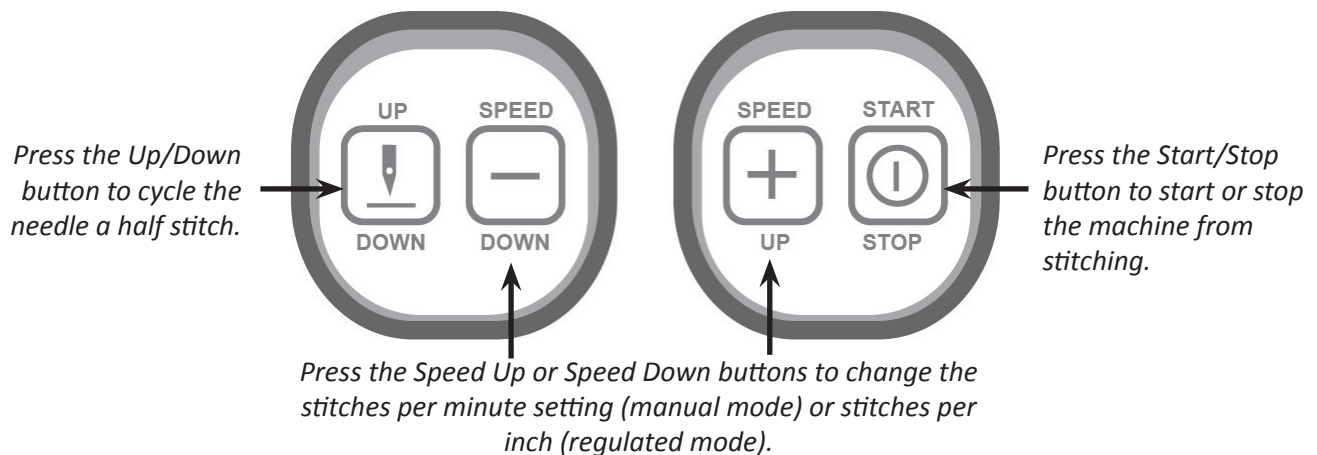


5. After the bolts are in place, plug the cable into the USB-style connection located on the front-left side of the machine. The upper small mini USB connection on the display is used to connect to the machine. The bottom regular USB connection on the right side of the display is for USB power only, no data.



6. Remove the protective plastic from the touch-screen display before using.

To use the handlebar buttons



Optional Accessory: Rear Handlebars and Display

To install the optional rear handlebars and display

- ➡ **IMPORTANT:** Install the rear handlebars and display after the front handlebars and display have been installed.

1. Check that the machine is unplugged from the electrical outlet.

- ⚠ **CAUTION:** All power to the machine must be turned off when installing the rear handlebars. Failure to do so can result in damage to the machine.

2. The rear handlebars come mounted to a bracket. Line up the four holes in the bracket with those on the rear of the machine.

3. Slide the four bolts into holes until they stop. Hand tighten, and then use the 3 mm wrench to securely fasten the handles to the back of the machine.
4. After the four bolts are in place, plug the small connector end of the cable into the port on the left side of the display. Push the plug securely into place.
5. Securely plug the other end of the cable into the port on the back of the machine below the handlebars.

 **NOTE:** See the instructions that accompany the Rear Handlebars and Display.

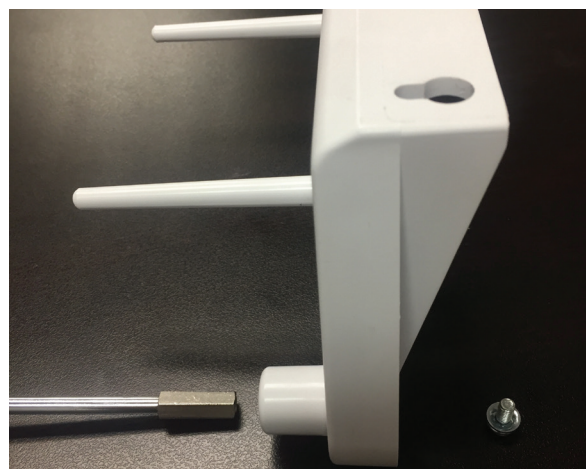
 **IMPORTANT:** After the rear handlebars have been completely installed and plugged in, test them by turning on the Quilt Maker Pro 16 and looking at the rear display. If nothing appears on the screen, check that both the front and rear handlebar cables are plugged in securely, that your machine is turned on, and that the power cord is plugged into the machine as well as a power source.



Thread Mast

To install the thread mast

1. Locate the two threaded holes about mid-way back on the left side of the machine.
2. The thread mast comes with a standoff, a screw with washer and spool support.
3. Screw the standoff onto the bottom of the thread mast firmly.
4. Place the standoff into the hole in the spool support and fix it with the Phillip's screw with washer from the underside.



5. Rotate the thread mast loops until they are directly over the spool pins and firmly tighten the Philip's screw.



Optional Accessory: Horizontal Spool Pin

An optional horizontal spool pin is available for metallic and specialty threads wound on a spool (not a cone).

To install the optional horizontal spool pin

1. Remove the nut and washer from the post. Place washer over the threaded hole on the top of machine.
2. Replace nut and screw the post into the threaded hole. Tighten the nut to secure.
3. Place the clamp on the post and place remaining pin in the clamp. Tighten the screw to hold in place.
4. Elevate the end of the pin slightly above horizontal to keep spool from falling off.
5. Thread the machine beginning at horizontal spool pin, bypassing the thread mast. When using delicate threads with the Horizontal Spool Pin, skip thread guide A. Thread the top hole only of the three-hole thread guide B, back to front. (See Right side view, items 2 and 3.)
6. Continue threading the machine as described in steps 3 through 6 in the section named *Threading Your Machine* later in this manual.



Optional Accessory: Ruler Base

If you plan to use rulers and templates with the Quilt Maker Pro 16, you need to purchase the ruler base to give you a large, stable surface on which to rest the ruler or template. The ruler base, rulers, and templates are optional accessories.

To install the optional ruler base

1. The Quilt Maker Pro comes with four preinstalled mounts for the ruler base.
2. Tilt the ruler base down about 30° and align the ruler base brackets with the four machine mounts.
3. Push the ruler base down and back onto the machine mounts.

To remove the ruler base

- Start by lightly pulling out and then up to remove the ruler base from the machine mounting tabs.



To use rulers and templates with your quilting machine

- △ **CAUTION:** Use only one-quarter inch thick rulers and templates with your machine. Do not use rotary-cutting rulers as they are too thin and can easily slip under the hopping foot. Always use a ruler base or extended table to stabilize the ruler.

Keep the ruler flat and quilt only where you are securely holding the ruler. Avoid losing control by walking your hand along the ruler or stopping and repositioning your hand and the ruler.

- Apply gentle three-point pressure to the ruler, as follows.
 1. Press the ruler against any side of the hopping foot.
 2. Press machine against ruler.
 3. Press ruler against ruler base with only as much pressure as is necessary to keep the ruler from slipping. Too much pressure will keep the machine from moving.

The machine's hopping foot stitches a quilting line that is a quarter inch away from the ruler edge. The markings on all Janome rulers take this into consideration.

- ✎ **NOTE:** Set the machine to stop in the needle-down position to keep the machine from moving while making adjustments with the ruler.

Optional Accessory: Laser Stylus

The laser light (for use with paper pantographs) attaches to a mounting post with a clamp. The mounting post attaches to a threaded hole on the thread-path side of the Quilt Maker Pro 16.

To install the optional laser stylus

1. Place the nut on the laser stylus post with the washer under it and thread the laser post into the threaded hole, near the rear wheel base. Turn until securely in place. Lock in place with nut.

 **NOTE:** The washer will be under the nut to protect the machine paint.



2. Insert the laser stylus into the laser clamp.
3. Slide the laser clamp over the post to the desired height and ensure it is secure.
4. Plug the laser's cable into the Laser Stylus Power Connector. When this cable is plugged in, the laser receives power and is turned on. To turn off the laser, unplug the cable.

The laser projects a straight laser beam visible as a dot on surfaces it hits. Use the laser dot as a guide, or stylus, to trace printed pantograph designs and stitch the continuous pattern onto a quilt.

The laser stylus can move in any direction by rotating the clamp on the post and pivoting the laser up or down. To make an adjustment, loosen the black thumbscrews, position, and retighten.

➡ **IMPORTANT:** A label is attached to the laser's case and contains an arrow that indicates the direction the laser light will shine when energized. The label must remain in place on the laser. Removing the label voids the laser's warranty.

Laser Operation and Safety

Be sure the laser is attached to the machine and pointed downward toward the table before connecting it to the port. Never point it in a direction that would project the beam into someone's eyes. If the laser should stop working, ensure the plug is firmly seated into the Quilt Maker Pro 16 laser port.

Laser Focus and Image Size

Focus the laser by turning the threaded housing surrounding the lens clockwise or counterclockwise. The laser image can be adjusted to project a bigger or smaller dot, or focal size. The direction of rotation needed is determined by the distance of the laser from the pantograph surface. Experiment by rotating the threaded end to achieve your desired focal size.

Laser Safety

When using the laser stylus, observe the following basic safety precautions.

- Never shine directly into the eyes.
- The laser stylus should never be left on and unattended.
- Do not use the laser stylus as a toy.
- Pay close attention when the laser stylus is being used by or near children or pets.
- Use the laser stylus only for its intended use as described in this manual.

 **NOTE:** If you can't see the threaded housing, the lens may be threaded too far into the laser body. You will need to use a large slotted screwdriver to turn it counter clockwise until the housing is visible. You can then rotate it with your fingertips to bring the light into focus. Be very careful to not scratch the lens when using the screwdriver.

 **CAUTION:** Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

Using Your Machine

Power Switch

The power switch is at the rear of the machine. Turn it on by toggling the switch from the 0 position to the 1 position.

- **IMPORTANT:** If you will not be using the machine for more than a day, we recommend you turn off the machine and unplug the power cord from the power source.
- **IMPORTANT:** Refer to the safety instructions.

Lighting

The Quilt Maker Pro 16 includes an LED light ring that illuminates the needle and stitching area. The light automatically comes on when you turn on the machine. Turn off the lights using the Lights button on the Main Screen. For more information about turning on and off the LED light ring, see *Overview of the Main Screen* in the *Using the Touch-Screen Display* section of this manual.

Machine Needle

Use only the recommended needle system for your Quilt Maker Pro 16 quilting machine. The machine was timed to use this specific type of needle and it is designed to work with the high quilting speeds and multidirectional stitching the Quilt Maker Pro 16 offers.

The Quilt Maker Pro 16 uses the 134 needle system. Note that the needle has a round shank rather than a shank with a flat side like home sewing machines use.

If you use the recommended needle, you will experience:

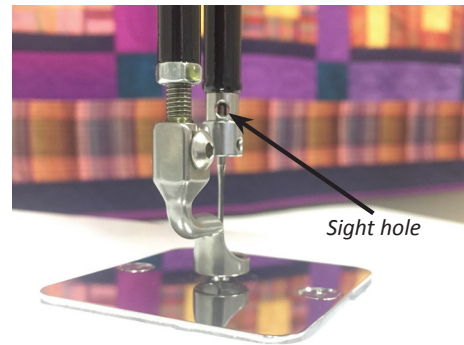
- Fewer skipped stitches
- Less needle breakage
- Less thread breakage, especially at high speeds
- Less thread splicing or shredding
- Optimum fabric protection

- **IMPORTANT:** Change the needle regularly. We recommend you use a new needle for each new quilt loaded on the machine, and any time the needle becomes bent, dull, or burred.

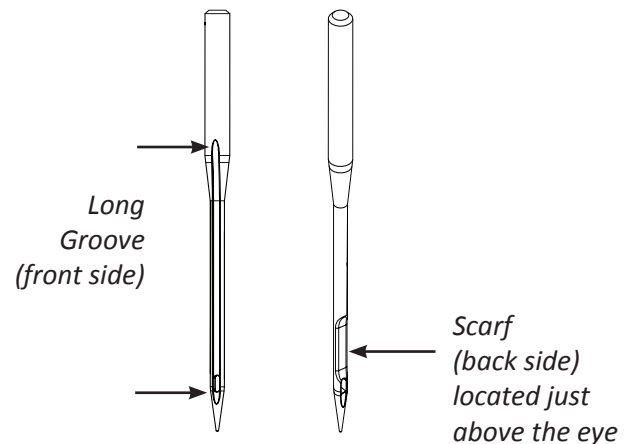
- △ **CAUTION:** A damaged needle may result in poor stitching quality or may even damage the machine or your quilt.

To change the needle

1. Move the needle bar to the highest position by turning the front or rear hand wheel or pressing the needle up/down control on the handles. Then turn off the power.
2. Loosen the needle bar clamp thumbscrew.
3. Remove the old needle by pulling it down. Discard the old needle in a safe way.



4. With the scarf (small ground-out section/dip on the back side of the needle just above the needle eye) facing toward the back hand-wheel side of the machine, and the long groove down the front of the needle facing the bobbin-case side, push the needle all the way up into the needlebar, until it can go no further.
5. Carefully tighten the needle bar clamp screw until the needle is securely fastened into the machine. If necessary use the 2.5mm hex tool to secure the needle; however take care not to over tighten the screw. This may result in damaged or stripped threads in the needle clamp. Damage to the needle clamp may also make it difficult to fully insert the needle, which will change the machine timing, or cause more issues. Stripped threads and damage caused by improper needle installation or tightening are not covered under warranty.



 **NOTE:** It is recommended to use a new needle for each new quilt. Also, replace the needle any time it becomes bent, dull or burred.

 **IMPORTANT:** Check the needle to confirm it is fully inserted. The needle bar has a stop/sight hole above the needle bar clamp screw. Make sure the needle is touching the top of the stop/sight hole. If it is not, the machine timing will be off and it may be possible for the needle to collide with internal parts, causing damage not covered by the warranty.

- △ **CAUTION:** Your Janome machine stitches at a much faster speed than your home sewing machine; therefore, it is essential that the needle is seated into the needle bar and fully tightened (but not overtightened). Check often that the needle has not become loose. If the needle comes loose, it could break in the machine causing damage, alter the machine's timing, or cause bodily harm.

Needle size	Thread size
12 and 14	monofilament, 100 wt. silk, 60 wt. poly, mylar
16	monofilament, hologram, 100 wt., 80 wt., 60 wt., 50 wt., 40 wt. silk, poly or cotton thread
18	40 wt. cottons and poly, 30 wt. cottons and poly
20	Any thread 30 wt. and heavier such as 12 wt., 19 wt., 30 wt.

Machine Quilting Tip: Needle Requirements

For general quilting, a size 16/100 needle will accommodate most threads and fabrics. Heavier threads, such as top stitch and some decorative threads, require a larger needle such as 18/110 or 20/125. Lofty batts and heavier fabrics such as denim, canvas, or densely woven fabric may also require a larger needle.

Hopping Feet

Your machine comes with two hopping feet: a ruler foot (comes installed) and an open-toe foot. Use the ruler foot for everyday quilting and ruler work, and use the open-toe foot when you need greater stitch visibility (such as when you are micro quilting).

To change the hopping foot

1. Remove the foot that is on the mount by using the 2.5 mm hex tool to loosen the mounting screw far enough that you can slide the foot off of the mount.
2. Slide the desired foot onto the mount. Note that the opening on the side of the foot is lined up with the screw hole. Push the foot up as far as it will go.

✏ **NOTE:** You may need to push up the pressure bar (see Left Side View, Detail A, item 18) when changing the hopping foot.



3. Fully tighten the screw with the 2.5 mm hex tool.



Optional Accessories: Couching Feet, Echo Feet, and Glide Foot

In addition to the ruler foot and open-toe foot that come with your Quilt Maker Pro 16, Janome offers specialty feet to enhance your quilting: the Couching Feet Kit, the Echo Feet Kit, and the Glide Foot.

Bobbin and Bobbin Tension

The Quilt Maker Pro 16 quilting machine uses M-class bobbins that are larger than sewing machine L-class bobbins. The larger bobbins hold more thread, enabling you to quilt for a longer time between bobbin changes.

To wind the bobbin

The Quilt Maker Pro 16 comes with a separate bobbin winder. For full instructions about using the bobbin winder, see the instruction manual that was packaged with the bobbin winder.

To insert the bobbin into the bobbin case

- △ **CAUTION:** To prevent personal injury, always turn off the power switch while inserting or removing the bobbin case or whenever your hands are near the needle area, such as when you change the needle.

1. Place the bobbin in the bobbin case so that the thread pulls off clockwise when viewing the open side.
2. Slide the thread through the slot and under the tension spring, leaving approximately five to six inches of thread hanging loose.



To test bobbin tension

The bobbin tension is the foundation tension for the entire machine. Always set the bobbin tension first.

 **NOTE:** Check the bobbin tension each time a new bobbin is inserted.

1. With the bobbin properly in the bobbin case, hold the bobbin case in the palm of your hand with the open end facing up.
2. Wrap the thread two to three times around the index finger of the opposite hand and lift the bobbin up. The bobbin case should lift up on its side, and slightly lift out of your hand. If the bobbin will not lift up on its side, the bobbin tension is too loose and if it lifts out of your hand, the bobbin tension is too tight.

To adjust the bobbin tension

- Make the bobbin tension adjustment using the screw in the center of the tension spring. Turn clockwise to tighten and counterclockwise to loosen the bobbin tension. Make tiny adjustments to the bobbin tension and test again.



To insert the bobbin case into the machine

1. Move the needle to the up position. Turn off the power to the machine.
2. Place the bobbin in the bobbin case so that the thread pulls off clockwise when viewing the open side.
3. Slide the thread through the slot and under the tension spring, leaving 5 to 6 inches of thread hanging loose.
4. To fit the bobbin case onto the hook spindle in the machine, orient the bobbin case as shown in the photo with the alignment notch to the right. Push the bobbin case inward until it clicks into place.

 **NOTE:** Do not insert the bobbin case into the machine by lifting the lever on the bobbin case. Use the lever only for removing the bobbin case.



Top Thread Tension

One of the joys of quilting with the Quilt Maker Pro 16 is its ability to handle many different types of thread. You can quilt with almost any high-quality thread as long as you first adjust the bobbin tension and then adjust the top tension to suit the thread you've chosen.

Puckering, gathers, and thread breakage occur when the top tension is too tight. Loops and thread nests occur when the top thread tension is too loose or you are using a poorly wound bobbin. Tension may need to be adjusted depending on the fabric, thread, or batting you are using on the project.

 **NOTE:** Top tension should be adjusted after the bobbin case foundation tension adjustment is made.

 **NOTE:** Dark threads will be thicker (because of dye) than light threads of the same weight. The type or brand of thread may also affect tension settings. Each time you change threads, you should check your tension.

 **IMPORTANT:** Before adjusting the top tension, remember to pull the top thread up into the tension discs (flossing the thread). Otherwise it will float outside the discs, providing little or no top tension. This could cause thread nesting problems on the bottom side of the quilt.

Machine Quilting Tip: Test the tension settings before quilting

The best way to make sure the top and bottom tension settings are balanced is by quilting. Keep 4-inch squares of light solid fabric on hand to place at the side of the quilt on the extra batting and backing. Then quilt some loops and swirls and look at the stitches on top and bottom to ensure the tension looks balanced. Fine tune the top tension as needed.

To adjust the top tension

- Test stitching with a scrap of fabric placed on the extra batting and backing at the side of the quilt. Adjust the tension knob as follows until you have balanced tension. Continue to test the stitching on the fabric scrap until you are happy with the tension.

To tighten top tension

- To adjust the top thread tension to be tighter, turn the tension knob **clockwise**.

To loosen top tension

- To adjust the top thread tension to be looser, turn the tension knob **counterclockwise**.

 **NOTE:** Unlike the bobbin case tension adjustment, which requires minute adjustments, the top tension knob may require turns anywhere from a quarter of a turn to two to four turns to achieve balanced tension.

Optional accessory: Easy-Set Tension™ Kit

The Easy-Set Tension Kit replaces the machine's tension knob. It shows the top tension setting as a numeric value on a display. After you establish the tension setting for a particular thread (brand, weight, and color), record the value so you can easily return to that tension setting when using that specific thread again.

Tension Quick Start Guide

Bobbin adjustments are tiny, like ticks of the clock.

1. Always adjust bobbin thread tension first. Then stitch out to check top tension.

2. If top thread looks like Diagram A

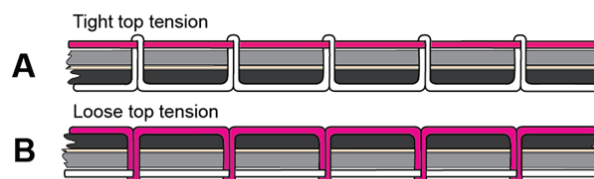
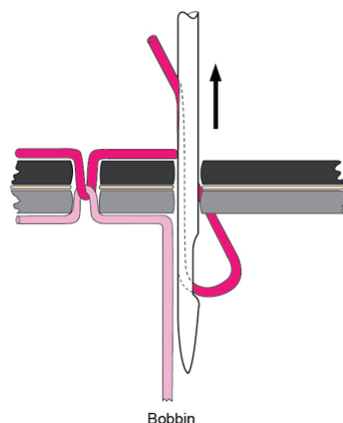
Problem: The top thread tension is too tight.

Solution: Loosen the top thread tension by turning the tension knob counterclockwise.

3. If top thread looks like Diagram B

Problem: The top thread tension is too loose.

Solution: Tighten the top thread tension by turning the tension knob clockwise.



Threading the Machine

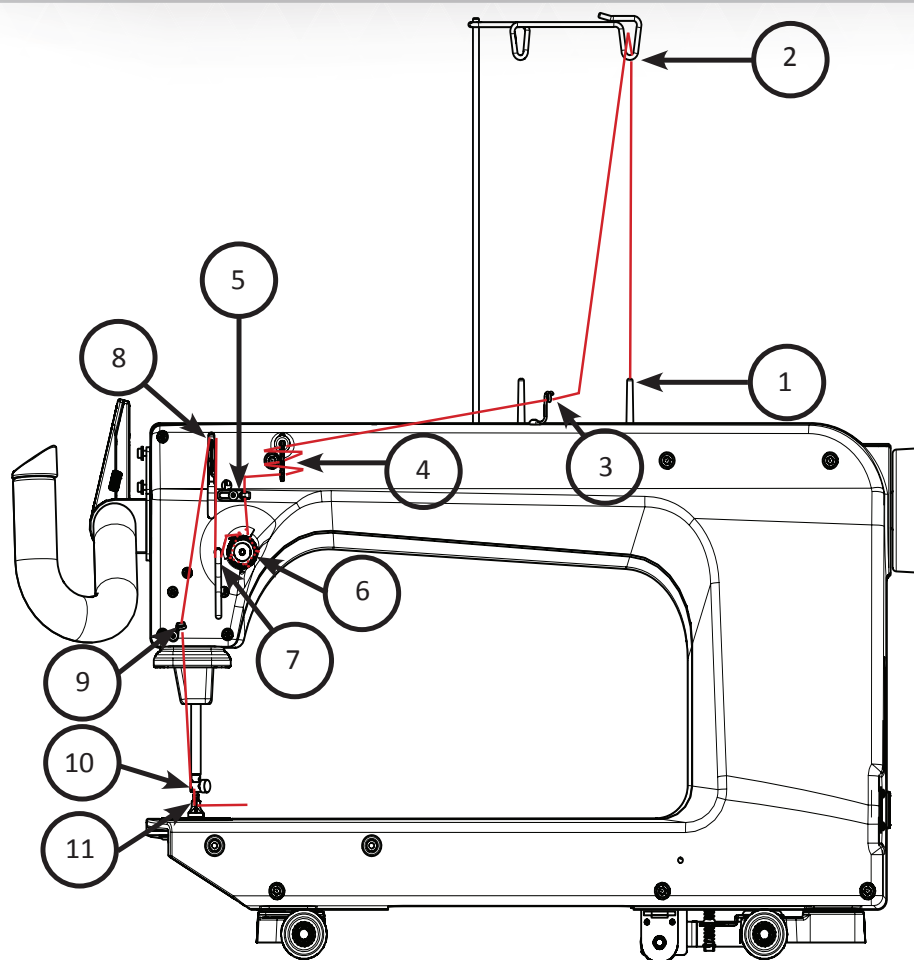
Janome recommends that you select and use only high-quality threads for your quilts.

To thread the machine

Refer to the threading diagram on the next page.

1. Place thread cone onto spool post ①, insert the thread through the thread-mast eyelet ② from back to front, continuing to the thread guide ③.
2. Continue to the three-hole thread guide ④. Wrap the thread through all three holes from back to front, being careful not to cross threads. This is recommended for most threads. However, some very delicate threads or metallic threads may require less tension. If you are having problems with thread breaking, try threading only one or two holes of the three-hole thread guide.
3. The thread continues down to thread guide ⑤ and to the tension assembly ⑥.

❗ **IMPORTANT:** The thread must be flossed up between the two tension discs. If the thread is not firmly in place between the two tension discs, the thread will lay on top of the tension discs (no tension) and thread looping on the bottom of the quilt can occur.



4. After the thread is in place, be sure that the thread catches on the take-up spring and then pull it down under the stirrup thread guide ⑦.
5. Bring the thread up and through the take-up lever from back to front ⑧, and then to the pigtail thread guide ⑨, and thread through the needle bar thread guide hole ⑩.
6. Make sure the thread is following the groove down the front of the needle and insert thread through the eye of the needle from front to back 11 . While pulling thread through the eye of the needle, be careful that the thread does not twist around the needle.

 **NOTE:** Before threading the needle, confirm that the machine is threaded properly and the tension is correct by carefully pulling the top

thread. It should pull smoothly with light to medium tension. If thread pulls freely with no tension, rethread the machine, ensuring that the thread is flossed into the tension discs.

➡ **IMPORTANT:** The Quilt Maker Pro 16 does not have a presser foot lever or top tension release like a home sewing machine. On a home sewing machine the top tension is released when the presser foot is raised, allowing the thread to come freely out of the machine. When a home machine is threaded the tension discs are released and open to allow the thread to easily fall between the tension discs. This isn't the case with the Quilt Maker Pro 16 quilting machine. The top tension is always tight and the tension discs are never open. Therefore the thread must be pulled up, or flossed, between the tension discs or it will stay outside the discs and float without tension, causing serious tension problems and/or thread nests.

Quilting With the Quilt Maker Pro 16

Preparing to Quilt

1. Make sure your machine has been cleaned, oiled, has a new needle, and that the tracks on the frame are free from threads or other debris. If the machine isn't already plugged in, plug it in now.
2. Select your thread and wind one or more bobbins.
3. Turn on the power switch at the back of the machine.
4. Set your bobbin tension and thread your machine.
5. After loading your quilt, use a scrap of fabric along the edge of the quilt backing and batting to test the top tension. Make adjustments to the top tension as needed.

Using the Handlebar Buttons

To bring bobbin thread to the top of the quilt

1. After the machine is threaded, move the machine over the quilt to your starting location.
2. While firmly holding the tail of the needle thread, press the needle up/down button twice, causing the needle to go down through the quilt sandwich and then back to the up position. Or press and hold the up/down button until the needle does a full revolution; then release the button.
3. Move the machine four to six inches while holding the needle thread in place. The bobbin thread will pull up through to the top of the quilt.
4. Grasp the bobbin thread loop and pull it to the desired length. Reposition the needle to the starting location, and tie off the threads by quilting a few stitches in place. Then begin quilting.



To start or stop quilting

- Start or stop the machine at any time by pressing the Start/Stop button on the handlebars.



To tie off threads when starting and ending quilting

1. After the machine is threaded, move the machine over the quilt to your starting location.
2. While firmly holding the tail of the needle thread, press the needle up/down button twice, causing the needle to go down through the quilt sandwich and then back to the up position. Or press and hold the up/down button until the needle does a full revolution; then release the button.
3. Move the machine four to six inches while holding the needle thread in place. The bobbin thread will pull up through to the top of the quilt.
4. Grasp the bobbin thread loop and pull it to the desired length. Reposition the needle to the starting location, and tie off the threads by quilting a few stitches in place. Then begin quilting.

Free-Motion Quilting

When quilting, relax your hands and maintain a light touch on the handlebars. Gripping the handlebars too tightly may cause body tension resulting in poor quilting quality. The Quilt Maker Pro 16, in combination with the Little Foot Frame or Studio Frame system, will give you a smooth even glide while quilting.

Optional Computer-Guided Quilting: Pro-Stitcher®

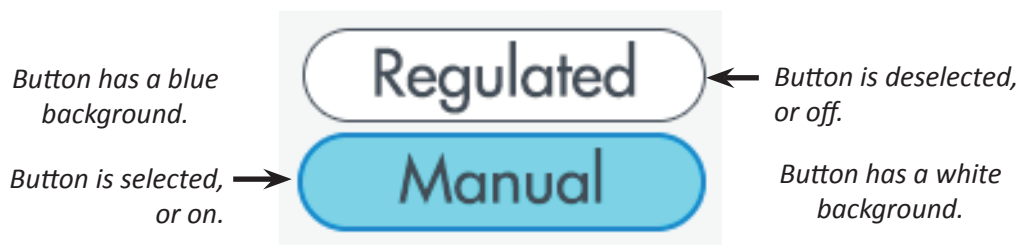
The Pro-Stitcher® quilting system integrates Janome's quilting machines, including the Quilt Maker Pro 16, with the best computer technology for computer-guided quilting using digital designs. The software is managed from a state-of-the-art tablet computer that is conveniently mounted on top of the machine.

This rich and full-featured software is easy to learn and makes precise quilting simple and fun! For more information about how Pro-Stitcher works, see the Pro-Stitcher user manual.

Using the Touch-Screen Display

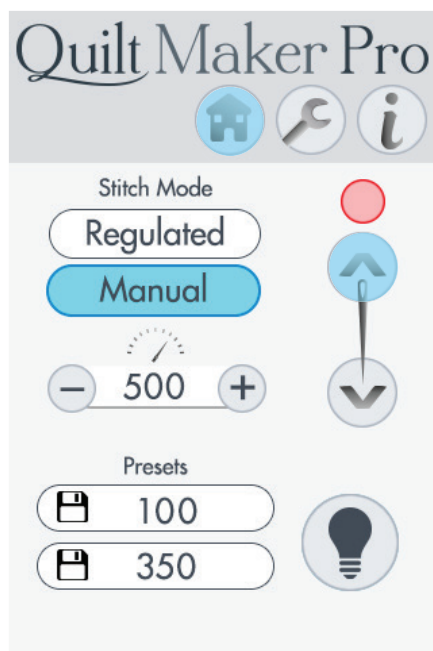
The Quilt Maker Pro 16 has a touch-screen display on the front handlebars. Use the display to access the quilting functions of the Quilt Maker Pro 16, such as how to: alternate between stitch-regulated and non-stitch regulated operation, control settings for how you prefer your machine to operate, and use tools such as counting stitches on a quilt or logging how much time it took to finish your quilt.

Buttons are selected, or on, when they are blue and display black text or graphics. Buttons are off when they are white and display black text or graphics. When you touch a button, it will toggle on or off, open a pop-up box for you to enter information, or open a screen with more options.



Overview of the Main Screen

The Quilt Maker Pro 16 Main screen provides quick access to all functions.



Toolbar Options

The toolbar is in the upper-right corner of the screen at all times. The button appears blue when it is selected.



Touch the Home icon whenever you need to return to the Main screen.



Touch the Tools icon to open the Tools. For more information about the various tools, see the *Machine Tools* section of this manual.



Touch the information icon to see system information such as the machine's hardware and software version numbers, as well as the machine's lifetime stitch count. For more information about the system information that is available, see *Information Screens* in the *Toolbar Options* section of this manual.

Other buttons on the Main Screen



Needle-stop button: Touch the button to alternate between having the needle stop in the up or down position when you stop stitching. Your choice displays in blue. This becomes the default stop position until you change it again.

This button does not move the needle, but rather indicates your preference for the final needle position when quilting is stopped. The up/down button on the handlebars will move the needle up and down when pressed until it is released.



On/Off Indicator: The circle above the Needle-stop button turns green when you press the Start/Stop button on the handles, indicating that the needle is in motion mode. When you stop quilting by pressing the Start/Stop button on the handlebars again, the circle turns red, indicating that the needle is in not moving mode.



LED lights button: Touch the LED lights button to turn lights on or off.

Stitching Modes

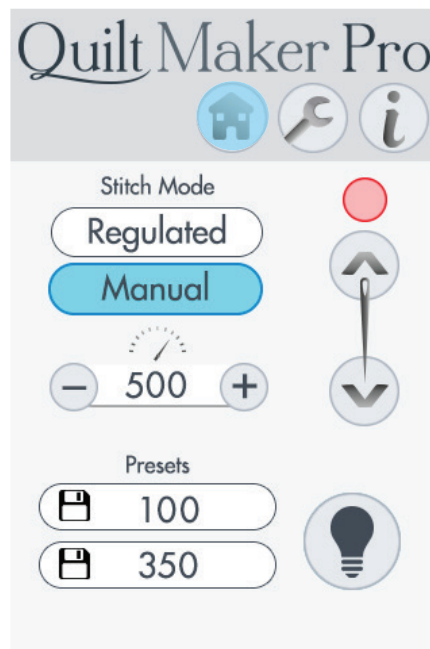
The Quilt Maker Pro 16 enables you to choose between two modes of stitch regulation (Cruise and Precision), or to choose manual stitching.

Manual Stitching Mode

When using the manual stitching mode, the length of the stitch is determined by how quickly or slowly you move the machine around the quilt, in combination with the number of stitches per minute (up to 1800) you have selected. For a consistent stitch length, move the machine at a consistent speed. Experiment with different combinations of quilting speed and stitches per minute to find what optimally works for you.

To use manual stitching mode

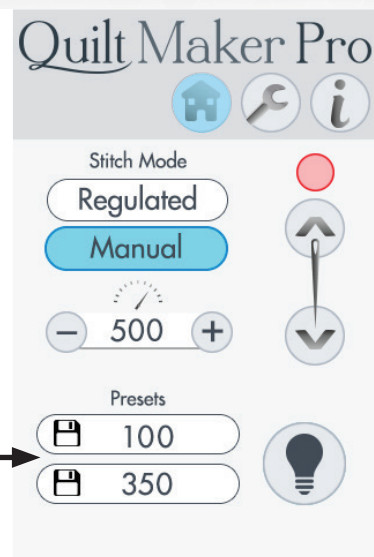
- Touch the **Manual** button and then specify the stitches per minute (SPM) by pressing the plus (+) or minus (–) buttons on the screen or selecting one of the two boxes with a stitches-per-minute preset. Pressing the plus (+) or minus (–) buttons on the screen to change the stitches per minute has the same effect as pressing the plus (+) or minus (–) buttons on the handlebars while in Manual mode.



To configure the manual stitching mode preset speeds

The manual mode preset speeds are two stitches-per-minute speeds, up to 1800 stitches per minute (SPM), that are saved for quick access from the Main screen. After you set the speeds, you can choose one of the presets when in Manual stitching mode and it becomes the current speed. Perhaps you want one speed when doing overall quilting and another speed for micro quilting.

Touch one of the two preset buttons to save the current SPM setting as a preset.



1. Select Manual stitching mode by touching the **Manual Mode** button.
2. Press the plus (+) button to increase or the minus (–) button to decrease the current stitches-per-minute setting (top number).
3. Touch one of the preset buttons to save the current setting (top number) as a preset.

Machine Quilting Tip: Getting started with Manual Mode

Set the machine at a medium speed (such as 900) and begin moving it until you become accustomed to the resistance. By moving the machine faster, the stitches will begin to elongate. Either increase the stitching speed or move the machine more slowly to get the stitches to your desired length. When you move the machine more slowly, the stitches get shorter. If you move it too slow, stitches can build up on top of each other, break the thread, or make it extremely difficult to unpick. Decrease the stitching speed, while maintaining a constant motion with the machine, to bring the stitches to the desired length.

Stitch Regulation

Stitch regulation maintains a consistent stitch length (stitches per inch) regardless of how quickly or slowly you move the machine. This is of course unless you move faster than the machine can sew, at which time the stitches will begin to elongate.

Machine Quilting Tip: Getting started with stitch regulation

Set the machine to your desired stitch length. Begin moving the machine to become accustomed to the resistance. The machine motor will slow down or speed up to maintain a consistent stitch length according to how quickly or slowly you move the machine. Moving the machine too fast or in radical or jerky movements will defeat the stitch regulator function.

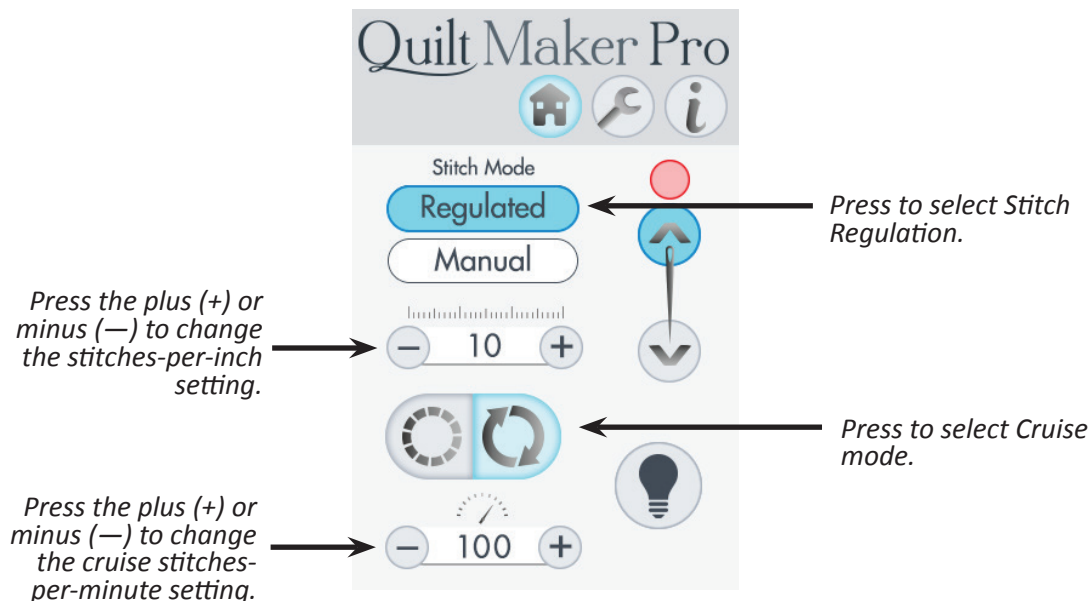
Machine Quilting Tip: Quilting speed while in stitch-regulation mode

It is unlikely that you will move the Quilt Maker Pro 16 across the quilt too fast. However, if you do, it will result in an overspeed condition if the machine can't stitch fast enough to maintain stitch regulation. In this case the machine will run full speed, but the stitches will begin to elongate and/or become inconsistent until you slow down to where the machine can keep up.

There are two stitch regulation modes: Cruise and Precision.

To use Cruise stitch regulation: (Cruise is the speed the machine will run as soon as the start button is pressed; in other words the slowest the machine will go.)

- Touch the **Regulated** button and then touch the **Cruise** button.



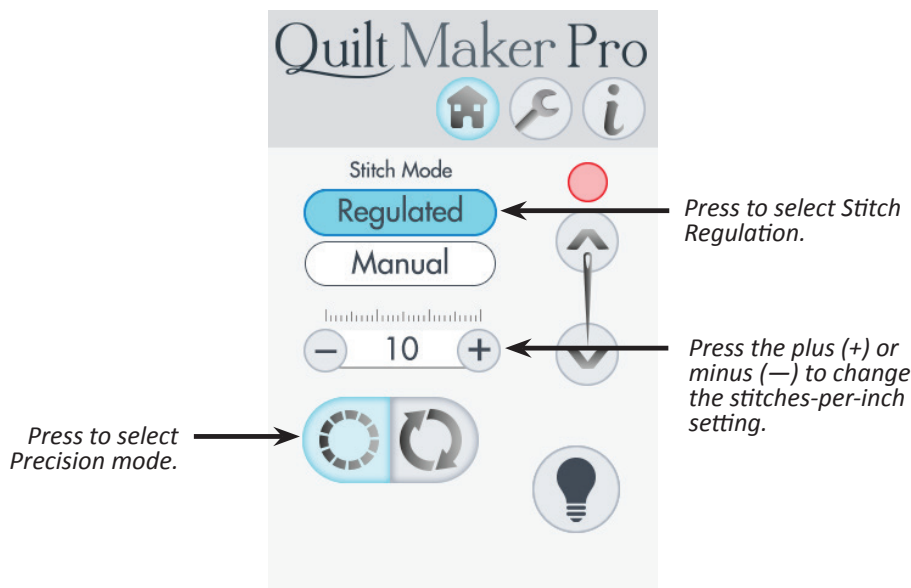
After you press the Start/Stop button on the handlebars, the machine immediately begins quilting according to the stitches-per-minute and stitches-per-inch settings. Similarly, as you bring your quilting to a stop, the needle will continue stitching at the cruise speed (stitches per minute) until you press the stop button on the handlebars. The minimum speed of the needle is dependent upon the stitches-per-minute setting you choose. Janome recommends beginning with a setting of 75. Begin moving the machine to avoid stitching in place for too long.

Machine Quilting Tip: When to use Cruise stitch regulation

The constant minimum stitching speed featured in the Cruise stitch regulation is useful for precise placement of stitching, such as when backtracking along the tops of feathers or when creating sharp points, such as the point of a star or the bottom of a heart.

To use Precision stitch regulation

- Touch the **Regulated** button and then press the **Precision** button.



After you press the Start/Stop button on the handlebars, you must begin moving the machine for it to begin quilting according to the stitches-per-inch setting. The circle above the Needle-stop button turns green when you press the Start/Stop button on the handles, indicating that the needle is in motion mode. When you stop quilting by pressing the Start/Stop button on the handlebars again, the circle turns red, indicating that the needle is in not motion mode.

When you begin moving the machine, stitching begins. When you stop moving the machine, stitching stops but just until you move it again.

- NOTE:** When using Precision stitch regulation, if you stop moving the machine but do not press the Stop/Stop button, after two minutes it will time out and a message box appears to let you know you will need to press the Start/Stop button to resume quilting.
- CAUTION:** Always make sure the power is off when changing the needle, replacing the bobbin, or placing your hands near the needle to avoid unwanted stitching in your quilt or in your fingers.

Machine Quilting Tip: When to use Precision stitch regulation

Precision stitch regulation mode is useful for ruler work. Stitch along the length of the ruler for the span of your hand and stop moving the machine, but do not press the Stop button. When you stop moving the machine, the needle pauses. Move the ruler and then begin moving the machine to continue quilting. Precision stitch regulation helps you to avoid misplaced and uneven stitches.

Controlling the Lights

Your Quilt Maker Pro 16 is equipped with an LED light ring.

To control the lights on the machine



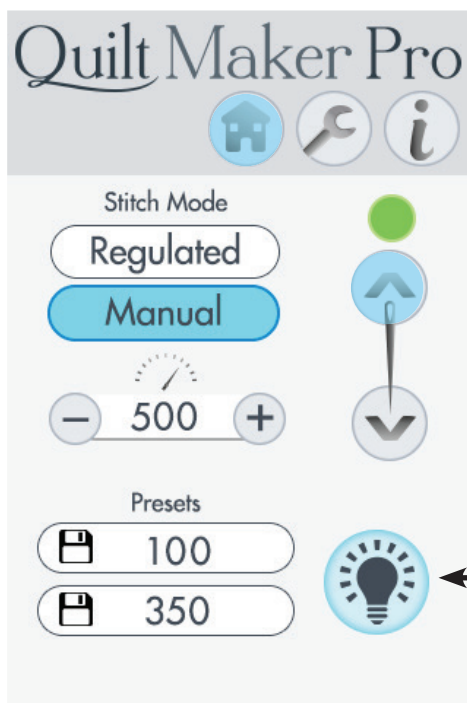
off



on

- To toggle the LED light ring on or off, touch the **Lights** button on the Main screen.

When lights are on, the on/off button displays in blue with lines to signify light. Touch the on/off button to quickly turn off the light.



Lighting Button

Machine Tools



To open the machine tools, touch the Tools icon in the toolbar.
After selecting it, the icon turns blue. Choose from the tools on the screen.



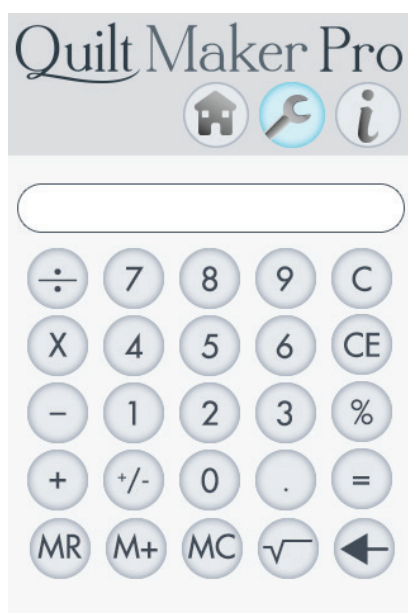
After you select an option, the screen changes for you to do any customization of that setting.

On-Screen Calculator

The Quilt Maker Pro 16 includes a basic on-screen calculator. It functions like all basic calculators. For example, press a number button and a function button followed by another number button. Function buttons include addition (+), subtraction (−), multiplication (x), and division (÷). After you've pressed the numbers and the function buttons, press the equal sign (=) for the answer.



- Touch the **Tools** button in the toolbar. Then touch the **Calculator** button. Press the **Home** button to return to the Main screen.



Diagnostics

There are several diagnostics tests that you may be asked to perform by Janome technical support or authorized Janome representatives. These functions test the motion encoders, the motor control functions, the key switches, and the internal position sensors.



- Touch the **Tools** button in the toolbar. Then touch the **Diagnostics** button. Perform diagnostics tests as needed. Press the **Home** button to return to the Main screen. Touch the **Tools** button to return to the Tools main menu.



To perform the Motor Sensor Test

The Motor Sensor test helps you determine whether they may be a problem with the Quilt Maker Pro 16 motor.

- Press the Motor Sensor Test button. Slowly rotate the hand wheel. While rotating, you should hear an audible pulsing beep. If you get a constant solid beep or no beep at all, the test has failed and the machine should be inspected by a qualified Janome repair technician.



To perform the Needle Sensor Test

The Needle Sensor test indicates whether the needle position sensor is functioning properly.

- Press the Needle Sensor Test button. Rotate the hand wheel. While rotating, you should hear a beep for half of a stitch cycle followed by no beep for the other half. If you hear a constant beep or no beep at all for a full 360° rotation of the handwheel, the test has failed and the machine should be inspected by a qualified Janome repair technician.



To perform the Motor Speed Sensor Test

The Motor Speed Sensor test helps you determine whether or not there is a problem with the Quilt Maker Pro 16 speed sensor.

 **NOTE:** Before performing this test, remove the bobbin case and the top thread.

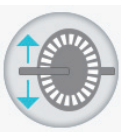
- Press the Motor Speed Sensor button. Then press the Start button on the handlebars and the machine will begin slowly rotating. The display will show a number that should stabilize at 100 if the sensor is functioning properly. Press Start again to stop the machine and the test.



To perform the Keypad Test

The Keypad test verifies that the Quilt Maker Pro 16 is reading the handlebar buttons when they are pressed.

- Press the Keyboard Test button. Then press one of the handlebar buttons. When you press the key, the name of the key appears in a white box on the screen. When you release the key, the name disappears.

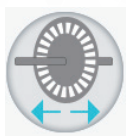


To perform the Y-Motion Sensor Test

Use the Y-Motion Sensor test to verify functionality of the Y-axis stitch regulator encoder (the encoder mounted to the rear left, machine wheel).

- Press the Y-Motion Sensor test button. Slowly move the machine toward and away from you. You should hear a pulsing beep that pulses faster as you move the machine faster. A solid beep, no beep, or periods of irregular beeping (with constant motion) indicate a problem with the Y-axis encoder.

 **NOTE:** The most likely cause of a problem is a stitch regulator wheel that is not making consistent contact with the track. Check the spring tension on the sensor assembly on the machine to assure that it will easily return to the fully extended (down) position after being compressed. Also assure that the track is straight with no dips or indentations and that it is clean and free of contamination. Other causes are an unplugged or damaged cable or possibly an issue with the main control board.



To perform the X-Motion Sensor Test

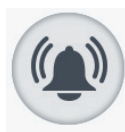
Use the X-Motion Sensor test to verify functionality of the X-axis stitch regulator encoder (the encoder mounted at the rear of the carriage).

- Press the X-Motion Sensor test button. Slowly move the machine left and right. You should hear a pulsing beep that pulses faster as you move the carriage faster. A solid beep, no beep, or periods of irregular beeping (with constant motion) indicate a problem with the X-axis encoder.

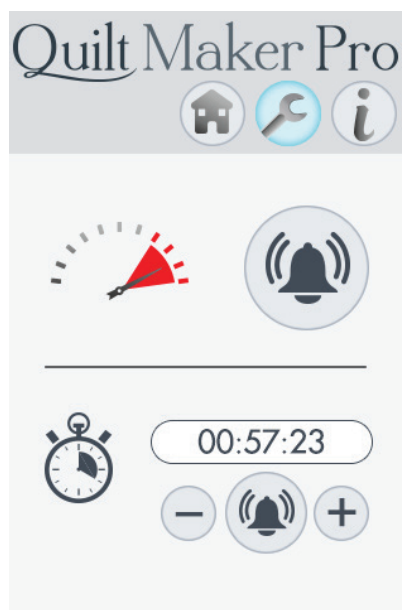
 **NOTE:** The most likely cause of a problem is a stitch regulator wheel that is not making consistent contact with the track. Check the spring tension on the sensor assembly on the carriage to ensure that it will easily return to the fully extended position after being compressed. Also ensure that the track is straight with no dips or indentations and that it is clean and free of lint build-up. Other causes are an unplugged or damaged cable or possibly an issue with the main control board.

Alarms

The Alarms screen has two alarms: the overspeed alarm and the quilting alarm.



- Touch the **Tools** icon in the toolbar. Then touch the **Alarms** button to open the Alarms screen.



The overspeed alarm alerts you if you are moving the machine faster than 100% of the motor capacity.

The quilting alarm enables you to set timed reminders.

To control the overspeed alarm

The overspeed alarm alerts you if you are moving the machine faster than 100% of the motor capacity and therefore are quilting too fast for stitch regulation to work properly.

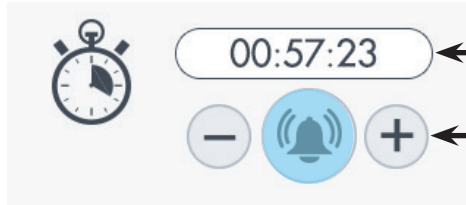


Touch the alarm icon to turn on or off the overspeed alarm. It appears blue when enabled.

1. Touch the alarm button to turn it on or off. It is on when it appears blue with the sound-wave symbols. It is off when it appears gray.
2. Press the **Home** button to return to the Main screen.

To set the quilting alarm

After you enable the quilting alarm, the time begins to count down. This alarm measures elapsed time, not machine quilting time. The example below shows 57 minutes and 23 seconds are remaining before the alarm will sound.



Shows the current quilting alarm setting.

Press the plus (+) or minus (–) buttons to change the alarm setting.

Touch the alarm icon to turn on or off the quilting alarm. It appears blue when enabled.

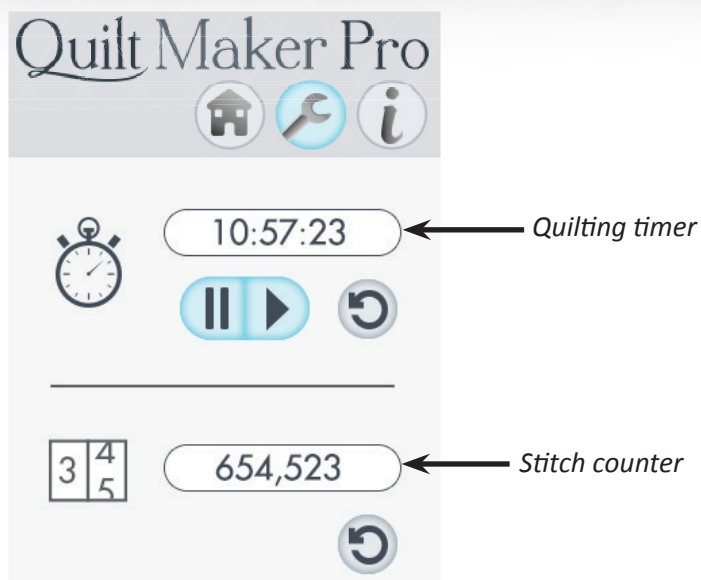
1. Specify the amount of time that will elapse before the alarm will go off. Fine tune the alarm setting by pressing the plus (+) or minus (–) buttons which changes the alarm setting by one minute at a time.
2. Touch the alarm icon to turn on the quilting alarm. When the time has elapsed, an alarm will sound.

Quilt Timer and Stitch Counter

The Timer screen enables you to track the amount of time you work on a quilt and to track the number of stitches on a quilt.

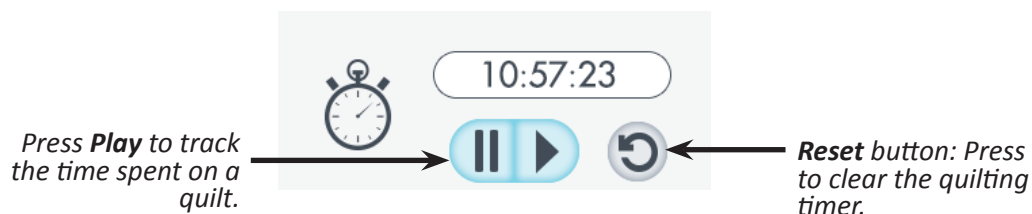


- Touch the **Tools** icon in the toolbar. Then touch the **Timer** button. Press the **Home** button to return to the Main screen.



To track how much time you spend on a quilt

Use the quilting timer to keep track of how much time you spend on a quilt. The quilting timer measures time the machine is actually quilting, not the time the machine is on but not stitching.



1. When you begin a new quilt, press **Reset**.
2. When you are ready to begin tracking the time spent on a quilt, press **Play**. Proceed with your quilting. When you are through quilting for a time, press **Pause**.
3. When you resume quilting, press **Play** again. The quilting timer will continue tracking your time and add it to the previously recorded time.

To track the number of stitches in a quilt

Use the stitch counter to count the number of stitches in a quilt.

- Press the **Reset** button to zero-out the counter when you begin a new quilt. To see the lifetime stitch counter for your machine, see the *Information screen*.

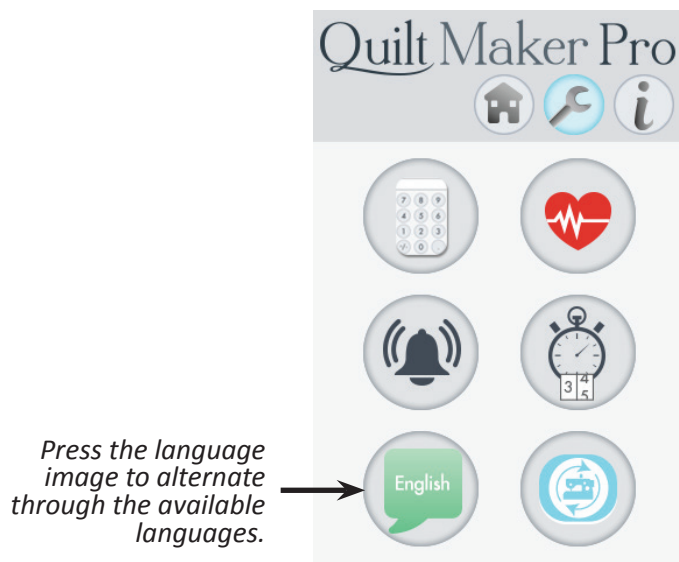
Set Language

The language setting determines the language used on the Quilt Maker Pro 16 information screens. The choices are English, French, German, and Spanish.

To select a language



1. Touch the **Tools** icon in the toolbar. The Tools screen appears.
2. Press the language image to rotate through the language options: English, French (Français), German (Deutsch), and Spanish (Español).
3. When the flag representing the language you want to use appears, press the **Home** button to return to the Main screen.



Updating Machine Software

From time to time Janome releases software updates for the machines. This update feature enables you to take advantage of the latest software capabilities added to machines. When an update is released, download the updated file(s) to a USB drive using a computer that is connected to the Internet. You will usually need to download two files: one for the machine software and one for the display software. Make a note of the file names and which is for the machine and which is for the display.

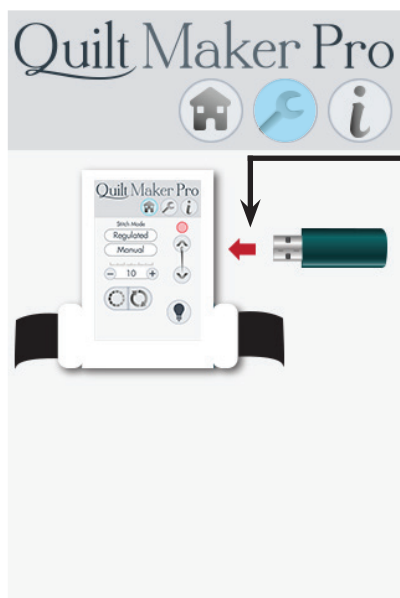
 **NOTE:** Save the file(s) to the root directory of the USB drive. (This means that they are not stored in a subdirectory on the drive; they are in the main, or root, directory.)

After downloading the updated software to a USB drive, insert the drive into the USB port on the right side of the display. The arrow will flash until the USB drive is fully inserted. The display changes to show the USB inserted into the machine. If the image doesn't change, remove and insert the USB drive again. Then touch either the Machine or Display button depending on which software you want to update.



- Touch the **Tools** icon in the toolbar. Then touch the **Update** button. Press the **Home** button to return to the Main screen. The red arrow will flash until the USB drive is inserted.

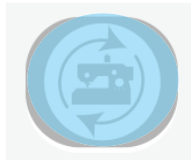
To update the machine's software



The red arrow will flash until the USB drive is plugged in. After the USB drive is recognized the machine update button (left) and display update button (right) will appear on the display screen.

- ➡ **IMPORTANT:** If you have installed the optional rear handlebars, temporarily unplug the rear handlebars while you update the machine software. Plug in the rear handlebars again when the update is complete. (Only one set of handlebars, the one with the USB port being used to update the machine may be plugged in while updating the machine)
- ✎ The USB connection on the left side of the display is USB power only. The left side port cannot be used for updating the machine or display software.

1. After touching the Tools and Update buttons and with the red arrow flashing, insert the USB drive into the USB port on the right side of the display (front or rear). Note: The other display must be disconnected from the machine.
2. Touch the machine update button on the screen to update the machine's software.
 - ➡ **IMPORTANT:** Do not remove the USB drive from the port until the machine update button turns from blue back to gray. This may take 1.5 to 2.5 minutes. If the USB drive is removed prematurely the program will not fully update. This will corrupt the machine software making it inoperable. The machine will then need to be returned to Janome for repair.
3. The machine button will turn blue while the machine software is updating.



4. The Quilt Maker Pro 16 will search for the machine update file on the USB drive. When the update is complete, the display screen button will once again turn gray.

To update the front display's software

1. After touching the Tools and Update buttons and with the red arrow flashing, insert the USB drive into the USB port on the right side of the display (front).
2. Touch the display update button on the screen to update the display software.
3. The display screen will go blank until the software is updated. Do not remove the USB drive until the display screen returns.



- ➡ **IMPORTANT:** Do not remove the USB drive from the port until the machine display screen is once again actively displayed. This may take 1.5 to 2.5 minutes. If the USB drive is removed prematurely the program will not fully update. This will corrupt the display software.

- ✎ If the display software update is interrupted and corrupted, it is possible to reprogram the display by putting it into the Boot Loader Programming Mode. This is done by holding down firmly the needle up/down button and the - (minus) simultaneously while powering on the machine. Then insert the USB drive into the right USB port of the display and wait until the display screen returns. Note: This cannot be done for the machine software if it is interrupted.



To update the optional rear display's software

If you have the optional rear handlebars and display, you will need to update the rear display as well.

- To update the rear display, insert the USB into the port on the right side of the rear display and run the display update feature from the rear display.
- ➡ **IMPORTANT:** Do not remove the USB drive from the port until the machine display screen is once again actively displayed. This may take 1.5 to 2.5 minutes. If the USB drive is removed prematurely the program will not fully update. This will corrupt the display software.

Information Screen

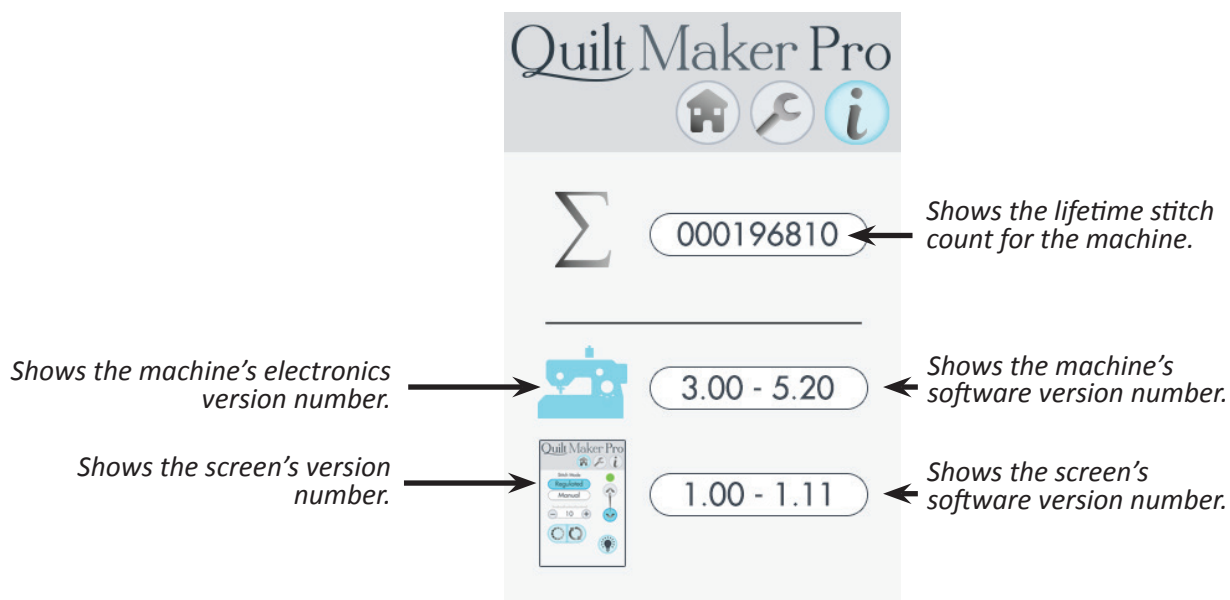


To open the information screen, touch the **Information** icon in the toolbar. After selecting it, the icon turns blue. Choose from the information options on the screen.

To monitor system information about your machine

You may need to provide system information to Janome or an authorized Janome representative when purchasing machine accessories or receiving technical assistance.

- Touch the **Information** icon in the toolbar.



Machine Maintenance

Clean and Oil Your Quilt Maker Pro 16

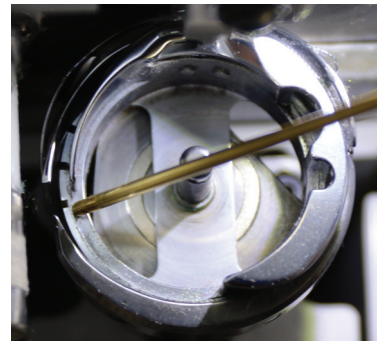
The only place where you need to regularly oil your machine is the bobbin hook assembly. Failure to keep the hook assembly lubricated can cause severe damage to the machine. We recommend that you oil the hook assembly with each bobbin change and before use if you haven't used the machine for a few days. A change in the sound of the machine while quilting also indicates that it may need to be oiled.

 **NOTE:** Internal oiling needs to be done when the machine is taken to a service technician for routine maintenance and cleaning, every 12 to 24 months, depending on use.

 **IMPORTANT:** Only use light sewing machine oil in the hook when oiling your machine.

To clean the bobbin area and oil the bobbin hook

1. Turn off the machine. Then remove the bobbin and bobbin case.
2. Clean the bobbin basket and hook assembly with a soft brush to remove lint.
3. Put a small drop of oil on the hook in the region where the bobbin basket assembly and the rotating hook meet. The oil will work its way back into the interlocking area of the hook and bobbin basket.
4. Replace the bobbin and bobbin case and turn on the machine.



Machine Quilting Tip: After oiling your machine

After oiling, always sew on a scrap piece of fabric off to the side of the quilt as oil may cling to thread. Over oiling can cause excess dripping from the bobbin assembly.

 **IMPORTANT:** How often you lubricate your machine depends upon how much use it gets. We recommend that you lubricate it before running the machine if it has not been used regularly, or after every bobbin change when using regularly. Failure to keep the machine lubricated will affect stitch quality and may result in a change in the sound of the machine.

To clean the touch-screen display

- Use a soft rag or microfiber cloth dampened with isopropyl alcohol and then gently wipe the display to remove any dust or fingermarks.
- △ **CAUTION:** Never use any chemicals to clean your display as this may negatively affect the display's touch-screen response.

Maintenance Schedule

In addition to the ongoing cleaning and oiling maintenance, you should have your machine serviced by an authorized Janome representative every 12 to 24 months, depending on use. They will take care of oiling and greasing internal parts and ensure the machine is in tip-top working order.

Troubleshooting

You can correct many problems on your own. If you need additional help, contact your local, authorized Janome retailer.

First check the following:

1. The AC power cord is properly connected and the power switch is turned on.
2. Confirm that all cables are properly seated into their connections.
3. Turn off the machine completely. Wait for at least ten seconds and then turn it back on.

If the above checks did not solve the problem, refer to the information below.

Skipped Stitches	Corrective Measure(s)
The needle is damaged, dull, bent, or installed improperly	• Replace the needle regularly, at least once per quilt. Use only the recommended needle system. • Always change the needle if the needle has struck any hard object such as a straight pin, etc. The tip of the needle can become damaged or burred, resulting in fabric damage as well as skipped stitches, thread breakage, or shredding. • Always change the needle if it has been hit, bumped or pulled off center while maneuvering the machine about the quilt. A slightly bent needle can be a major cause of skipped stitches.
Incorrect needle size	• Use the proper size of needle for the work and thread being used. Some battings and fabrics used in quilting may constrict or impede the thread passing through the front groove of the needle. This diminishes the loop lift required for stitch formation. Typically, a larger needle will solve the problem. However, using certain smaller sizes of needles and ball pointed needles solve some specific problems. You will need to experiment to determine which work best with your combination of fabric, thread, and batting.
Fabric is too tight on the frame	• Loosen the pole tension on the frame. Fabric that is rolled too tightly causes the fibers to separate and the fabric to bounce while quilting. This reduces the needle friction on the thread, resulting in a smaller thread loop or skipped stitches.
Thread tension too tight	• Check bobbin case tension and then check top thread tension. (For more information about adjusting tension, see <i>Bobbin and Bobbin Tension</i> and <i>Top Thread Tension</i> in the <i>Using Your Machine</i> section of this manual.)

The needle is not positioned properly	- Position the needle properly to the needle bar. Inspect the position of the needle to make sure the needle is at the 6 o'clock position. When you stand directly in front of the needle (facing the bobbin case side of the machine), you will see the entire needle eye directly facing you. This is 6 o'clock position. - Make sure (a) the needle is installed all the way into the needle bar to the needle-stop hole in the needle bar, (b) the long groove in the needle is toward the front (bobbin case side), and (c) the scarf (scooped out part of the back of the needle) is toward the back of the machine. - The needle can sometimes be rotated to 5 o'clock (slightly right) or 7 o'clock (slightly left) to adjust for a more positive thread loop pickup by the hook point.
Improper threading	Ensure that the machine is threaded correctly.
The Needle Breaks	Corrective Measure(s)
The needle is bent or not installed properly	Replace the needle. Make sure that the needle is pushed into the needle bar clamp until it can go no further. Visually check that it is up to the top of the stop/sight hole above the needle bar clamp screw. If the needle isn't installed properly, it can cause damage in the bobbin area and needle plate.
The needle hits the needle plate	Correctly position the needle, needle plate, or hopping foot. Replace with a new needle.
Stitches are Puckered	Corrective Measure(s)
The tension is not balanced. Top and bottom tension are both too tight.	Balance the tension of the needle thread after ensuring the bobbin tension is adjusted correctly. (For more information about adjusting tension, see <i>Bobbin and Bobbin Tension</i> and <i>Top Thread Tension</i> in the <i>Using Your Machine</i> section of this manual.)
Needle too large for quilting fabric	Replace the needle with a size better suited for the fabric.
Poor Stitch Quality	Corrective Measure(s)
The tension is not balanced	Balance the tension of the needle thread after ensuring the bobbin tension is adjusted correctly. (For more information about adjusting tension, see <i>Bobbin and Bobbin Tension</i> and <i>Top Thread Tension</i> in the <i>Using Your Machine</i> section of this manual.)

Bobbin case is damaged, corroded, dirty, etc.	Since thread slides over the surface of the bobbin case at a high speed, make sure the case is free of any lint or foreign matter that could impede thread passage through the machine.
Moving the machine too fast for needle speed selected (Manual mode)	Synchronize machine movement and needle speed to get roughly 8 to 10 stitches per inch. Elongated stitches are an indication of moving the machine too fast for the current speed.
Tension is Poor	Corrective Measure(s)
Lint caught under the tension spring in the bobbin	If using short staple threads, inexpensive, or industrial threads, or coated threads, lint and other material will build up under the tension spring and begin to lift the spring, reducing the spring's ability to compress against the thread. Insert a needle or business card under the spring and clear out the lint. The bobbin tension will return fairly close to its preset tension. Test the tension before quilting.
Hand Wheel Won't Rotate	Corrective Measure(s)
Thread is entangled and caught in the hook	Turn off the machine and unplug the machine from the electrical outlet. Lubricate the hook, strongly turn the hand wheel clockwise and if necessary counterclockwise several times, and then remove the thread caught in the hook.
Thread Nests Under Quilt	Corrective Measure(s)
Not enough tension on top thread	Check that the machine is threaded correctly. Make certain that the thread is flossed snugly in place between the two tension discs. If the machine is threaded correctly, tighten top tension by rotating the tension knob clockwise. (For more information about adjusting tension, see <i>Bobbin and Bobbin Tension</i> and <i>Top Thread Tension</i> in the <i>Using Your Machine</i> section of this manual.)
Improper threading	Refer to threading diagram and threading instructions.
Hard to Guide Machine	Corrective Measure(s)
Carriage wheels not centered on track	Center the carriage wheels on top of the continuous track. Check that the machine carriage has not jumped the track.
Thread caught in wheels	Remove all thread or debris in wheels. Check that the tracks are free of lint and threads.

Motor Fails to Run	Corrective Measure(s)
On/Off switch turned off	Turn the machine on by using the switch on the back power pod.
Machine not receiving power	Check that the power connector is securely plugged into the back of the machine and the three-prong end is plugged into the power source.
Uneven Quilt Design	Corrective Measure(s)
Take-up rollers may be bowed or bent	Make certain the fabric is not rolled too tight, causing the poles to bow. Check that poles are inserted completely together with the push pins engaged so bowing won't occur.
Leaders are stretched or worn	If fabric is beginning to stretch or fray, contact Janome to purchase replacement leaders. Do not wash the leaders.
Thread Breaks	Corrective Measure(s)
Thread is poor quality or may have severe twisting or thread rot	Look for severe twisting of threads when approximately 12 to 15 inches has been pulled off, with the ends pinched together. Cotton threads are particularly susceptible to dry rot or wet rot which makes thread brittle. Do not use poor quality thread, or thread that is rotted or brittle.
Top and bobbin tensions not balanced	Balance the tension of the needle thread after ensuring the bobbin tension is adjusted correctly. (For more information about adjusting tension, see <i>Bobbin and Bobbin Tension</i> and <i>Top Thread Tension</i> in the <i>Using Your Machine</i> section of this manual.)
The machine head has been threaded incorrectly or thread spools are not positioned correctly	- Check that the machine is threaded correctly. - Inspect for accidental double wrapping of thread on thread guides. - Inspect the thread mast, making sure the eyelets of the mast are directly over the spools. - Inspect the vertical positioning of the thread cones. Tipped cones can dramatically affect thread tension and can cause breakage.
Debris in tension discs	Inspect for particles and remove any fuzz or debris.

Bobbin rotation is not smooth	Change the bobbin. The slightest hesitation of the bobbin rotation can be the cause of dramatic tension change and thread breakage.
Needle is burred, bent or dull, or installed incorrectly	Change the needle at least once per quilt. Make sure the needle is installed to the top of the stop hole in the needle bar.
Needle not suitable for thread	Replace the needle to one better suited for the thread. Use the proper size needle.
Hesitating too long at one point in quilting motif	Move more quickly so stitches don't overlap or build up. When starting the machine, begin moving immediately. Sewing in one place too long will cause the thread to break.
Improper needle/hook relationship	Machine timing needs to be checked. Consult an authorized Janome technician.
Damage or burr at needle hole of needle plate or other thread handling part	If thread is shredding at the needle plate, check for burrs or jagged edges. Gently rub with metal cloth to remove the sharp edge. Consult a repair technician to polish any hard-to-reach or delicate areas, or if the burr is inside the throat.
Wrong type of needle	Use only the needles recommended by Janome: 134 (135x7) sizes 12 through 20.
Other possible problems	- Needle too close to hook, causing friction and possible collision of hook point and needle (causing broken thread). - Needle plate damage - Hook damage - Broken needles or damaged needle bar clamp
Nothing visible on the display	Corrective Measure(s)
Display cables unplugged	Locate the black cables that plug into the touch-screen display and connect to the side of the machine. Make sure both ends are plugged in securely.

 **NOTE:** If the troubleshooting tips do not eliminate the problem, please consult an authorized Janome technician

Appendix 1

Federal Communications Commissions (FCC) Declaration of Conformity (For USA Only)

Responsible Party: Janome America, Inc
10 Industrial Ave, Suite 2
Mahwah, NJ 07430

Declares that the product

Product Name: Quilt Maker Pro 16

Complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications not expressly approved by the manufacturer or local sales distributor could void the user's authority to operate the equipment.

Canadian Department of Communications Compliance Statement (For Canada Only)

This digital apparatus does not exceed the Class B limits for radio noise emission from digital apparatus as set out in the interference-causing equipment standard entitled “Digital Apparatus”, ICES-003 of the Department of Communications.

Radio Interference (Other than USA and Canada)

This machine complies with EN55022 (CISPR Publication 22) /Class B and AUS/NZ 55022/Class B.

Warranty

We thank you for purchasing this Quilt Maker Pro 16 (the “Product”) and hope you will enjoy it for years to come. In the event that your Product needs service covered by this warranty, please contact the authorized Janome dealer from whom you purchased it. To locate an authorized Janome dealer, please call 1-800-631-0183 ext. 774 or visit our website at Janome.com. Your Product was sold with an instruction booklet. To avoid any unnecessary inconvenience on your part, we suggest that you refer to the instruction booklet before contacting your authorized Janome dealer for service. We also strongly encourage you to register your product on-line at Janome.com.

Janome America, Inc. warrants that the Product will meet the written specifications of Janome America, Inc., all of which are within normal industry standards and included in the instruction booklet. This Janome Quilt Maker Pro 16 warranty is exclusive to the original purchaser of the Product and is provided in respect of normal household use. Janome America, Inc. warrants this Product as follows:

- (a) **1 Year Limited Warranty** - During the first 365 days from date of purchase, Janome will repair any manufacturing defect without charge for parts or labor. All subsequent warranties include parts costs only.
- (b) **10 year Limited Manufacturer's Warranty** - Janome warrants the sewing head is free of casting or machining imperfections causing product failure. This warranty does not extend to mechanical or electronic/electrical parts, which are covered under a separate warranty, or consequential damage to the head caused by mechanical or electronic/electrical part failures beyond their warranty period.
- (c) **5 year Mechanical Warranty** - For any mechanical failure within this period, manufacturer will provide free replacement parts, customer pays for labor and shipping. See warranty exclusions.
- (d) **5 year electronic/electrical warranty** - The electric/electronic components are warranted to be free from manufacturing defects for five years from the date of purchase. If any defect is reported within this period, manufacturer will provide free replacement parts, customer pays for labor and shipping. The 5 year electronic/electrical warranty will be invalid if the machine is left plugged into a power source when not in use.

The limited warranty stated in sections (b), (c) and (d) above shall be limited solely to the replacement of parts which, in the opinion of Janome, are defective in workmanship or material and are returned to Janome, or an authorized repair facility, or such other point or place that may be designated by Janome. All other costs, including cost of freight and shipment for repair under this warranty, shall be the customer's costs.

This warranty shall be in force only for the original purchaser.

Each of the periods described in above shall hereafter be referred to as a “Warranty Period”, together the “Warranty Periods”.

Irrespective of whether the Product is used commercially or for normal household use, in no event shall this warranty cover needles, needle plates, bobbin cases, fuses, light bulbs, or belts.

Warranty Exclusions

This warranty is VOID – that is, the Product was purchased without warranty – if you did not purchase it from an authorized Janome dealer within the United States. A list of authorized Janome dealers within the United States is available on our website Janomequilter.com. This warranty will be honored only when the original invoice or sales receipt (indicating the date of purchase, product type and authorized Janome Dealer's name) is presented together with the defective Product. This warranty will not apply if the serial number on the Product has been altered, deleted, removed, or is illegible. This warranty covers none of the following: (i) periodic maintenance and repair or replacement of parts due to normal wear and tear; (ii) postage, shipping and handling costs and all risks to the Product associated with shipment or transport; (iii) damage resulting from misuse of the Product or failure to provide normal maintenance; (iv) repairs to the Product done by unauthorized dealers, service providers or the purchaser; (v) damage resulting from the use of non-Janome brand parts, supplies, or accessories; (vi) accidents, lightning, fires, water, power surges, or any other cause beyond the reasonable control of Janome America, Inc.

User Manual QUILT MAKER PRO 16

If you suspect a defect in materials or workmanship of your Product, you must report it to the authorized Janome Dealer from whom you purchased it during the Warranty Periods described above. Your authorized Janome Dealer may require you to return the Product to them (properly packaged, freight prepaid) together with a photocopy of your original invoice or sales receipt.

Your authorized Janome dealer will evaluate your report of a possible defect and, if one is discovered, will (at its option) repair or replace the Product, either with an identical Product, or with a substitute product that is substantially similar to the original Product. Your authorized Janome Dealer reserves the right to supply refurbished Products or substitute products provided that they conform to the written specifications of Janome America, Inc. for new Products or new substitute products.

This warranty will also apply to any replacement Product or substitute product. For purposes of establishing the Warranty Periods described above hereof with respect to any replacement Product or substitute product, the original date of purchase of the original Product will continue to apply.

Specific exclusions of warranty limitations include, but are not limited to, the following:

- General, consequential, incidental or special damages including damage to fabric or material, the cost of rework or lost profits, the cost of installation or removal of any Products, and any inspection, testing, or redesign caused by any defect or by the repair or replacement of Products arising from a defect in any Product.
- Products which are received by Janome improperly packaged, altered, or physically damaged.
- Counterfeit or altered label(s) or stickers.
- Broken pins on connectors.
- Stripped screws or nuts.
- Connector(s) damaged, cracked, missing or broken.
- Missing, torn or punctured seal(s).
- Any use besides machine quilting applications using customary fabrics, threads and accessories.
- Operator error in the customary use of the Product.
- Internal adjustments, tampering or parts replacement done by anyone except authorized Representatives or customers specifically authorized by Janome Customer Support or warranty repair personnel on a case by case basis.

The warranty does not cover and the user assumes the risk of and there is hereby excluded any liability to Janome for failure, defects, loss, deterioration, personal injury or damage which are due to: (1) ordinary wear and tear or exposure, (2) abuse, misuse, negligence, or (3) use of parts not authorized by Janome.

Product Service and Maintenance

Replace needles every 2-4 hours (1-2 per large quilt) and lubricate bobbin hook every 3-4 hours of use. Periodically check the thread tensioner. Use a small brush to clean out all lint, loose thread or obstructions from the bobbin hook.

Servicing is recommended annually from a qualified Representative. Servicing will cover belt tensioning, encoder positioning, bearing retainers, hook axial play and timing, presser and needle-bar adjustment and internal lubrication to take-up lever, hopping foot levers, bushings/bearings.

This warranty will be governed by the laws of the state in which you purchased the Product ("Applicable Law"). Unless otherwise required by Applicable Law, Janome America, Inc. shall in no event be liable for incidental or consequential damages arising directly or indirectly from the use or inability to use the Product or any substitute product for any reason. Any implied warranties of merchantability or fitness for purpose of the Product or any substitute product are limited to the Warranty Periods described in paragraph 2 above. Other than as specified herein or as required by Applicable Law, all other warranties, conditions, or liabilities, whether express or implied by operation of law or otherwise, are hereby expressly excluded, and Janome America, Inc. hereby disclaims all other warranties, conditions or liabilities.

Notes:

This image shows a full page of blank, lined paper. It features approximately 20 evenly spaced horizontal grey lines across its entire width, providing a guide for handwriting or typing. The background is a clean, solid white color.

Lined area for notes or diagrams.

Quilt Maker Pro
JANOME