

User's Guide

Designer Sapphire™ | 85

This household sewing machine is designed to comply with IEC/EN/CSA C22.2 No. 60335-1 & 60335-2-28 and UL1594.

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. Keep the instructions at a suitable place close to the machine. Make sure to hand them over if the machine is given to a third party.

DANGER –TO REDUCE THE RISK OF ELECTRIC SHOCK:

- A sewing machine should never be left unattended when plugged in. The electrical socket, to which the machine is plugged in should be easily accessible. Always unplug this sewing machine from the electric outlet immediately after using and before cleaning, removing covers, lubricating or when making any other user servicing adjustments mentioned in the instruction manual.

WARNING –TO REDUCE THE RISK OF BURNS, FIRE, ELECTRIC SHOCK, OR INJURY TO PERSON:

- Do not allow to be used as a toy. Close attention is necessary when this sewing machine is used by or near children.
- Use this sewing 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 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 or service center for examination, repair, electrical or mechanical adjustment.
- Never operate the sewing machine with any air openings blocked. Keep ventilation openings of the sewing machine and foot control 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.
- Wear safety glasses.
- Switch the sewing machine off (“0”) when making any adjustment in the needle area, such as threading needle, changing needle, threading bobbin, or changing presser foot, etc.
- 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.
- To disconnect, turn all controls to the off (“0”) position, then remove plug from outlet.
- Do not unplug by pulling on cord. To unplug, grasp the plug, not the cord.
- The foot control is used to operate the machine. Never place other objects on the foot control.

- Do not use the machine if it is wet.
- If the LED lamp is damaged or broken, it must be replaced by the manufacturer or its service agent or a similarly qualified person, in order to avoid a hazard.
- If the cord connected with the foot control is damaged, it must be replaced by the manufacturer or its service agent or a similarly qualified person, in order to avoid a hazard.

SAVE THESE INSTRUCTIONS

FOR CENELEC COUNTRIES ONLY:

This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.

The noise level under normal operating conditions is less than 80dB(A).

The machine must only be used with foot control of type FR5 manufactured by Shanghai Binao Precision Mould Co., Ltd.

FOR NON CENELEC COUNTRIES:

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.

The noise level under normal operating conditions is less than 80dB(A).

The machine must only be used with foot control of type FR5 manufactured by Shanghai Binao Precision Mould Co., Ltd.

Federal Communication Commission Interference Statement

For the USA and Canada

Responsible party: Singer Sourcing Limited LLC
1714 Heil Quaker Boulevard, Suite 130, LaVergne, TN 37086

Product name: HUSQVARNA® VIKING® DESIGNER SAPPHIRE™ 85 sewing machine

Model number: SFV1

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.

To satisfy radio frequency exposure requirements, a separation distance of 8" (20 cm) or more should be maintained between this device and persons during device operation. To ensure compliance, operations at closer than this distance is not recommended. The built-in antenna used for this transmitter must not be co-located in conjunction with any other antenna or transmitter.

This equipment has been tested and found to comply with the limits for a 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 of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the authorized HUSQVARNA® VIKING® retailer or an experienced radio/TV technician for help.

The included interface cable should be used in order to ensure compliance with the limits for a Class B digital device.



Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

Declaration of Conformity

For Europe

Hereby, VSM Group AB on behalf of Singer Sourcing Limited LLC (who are commonly owned by SVP-SINGER Holdings LLC, d/b/a collectively as SVP Worldwide), declares that this sewing machine is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU. To view a copy of the Declaration of Conformity, please see RC-0234.

To satisfy radio frequency exposure requirements, a separation distance of 8" (20 cm) or more should be maintained between this device and persons during device operation. To ensure compliance, operations at closer than this distance is not recommended. The built-in antenna used for this transmitter must not be co-located in conjunction with any other antenna or transmitter.

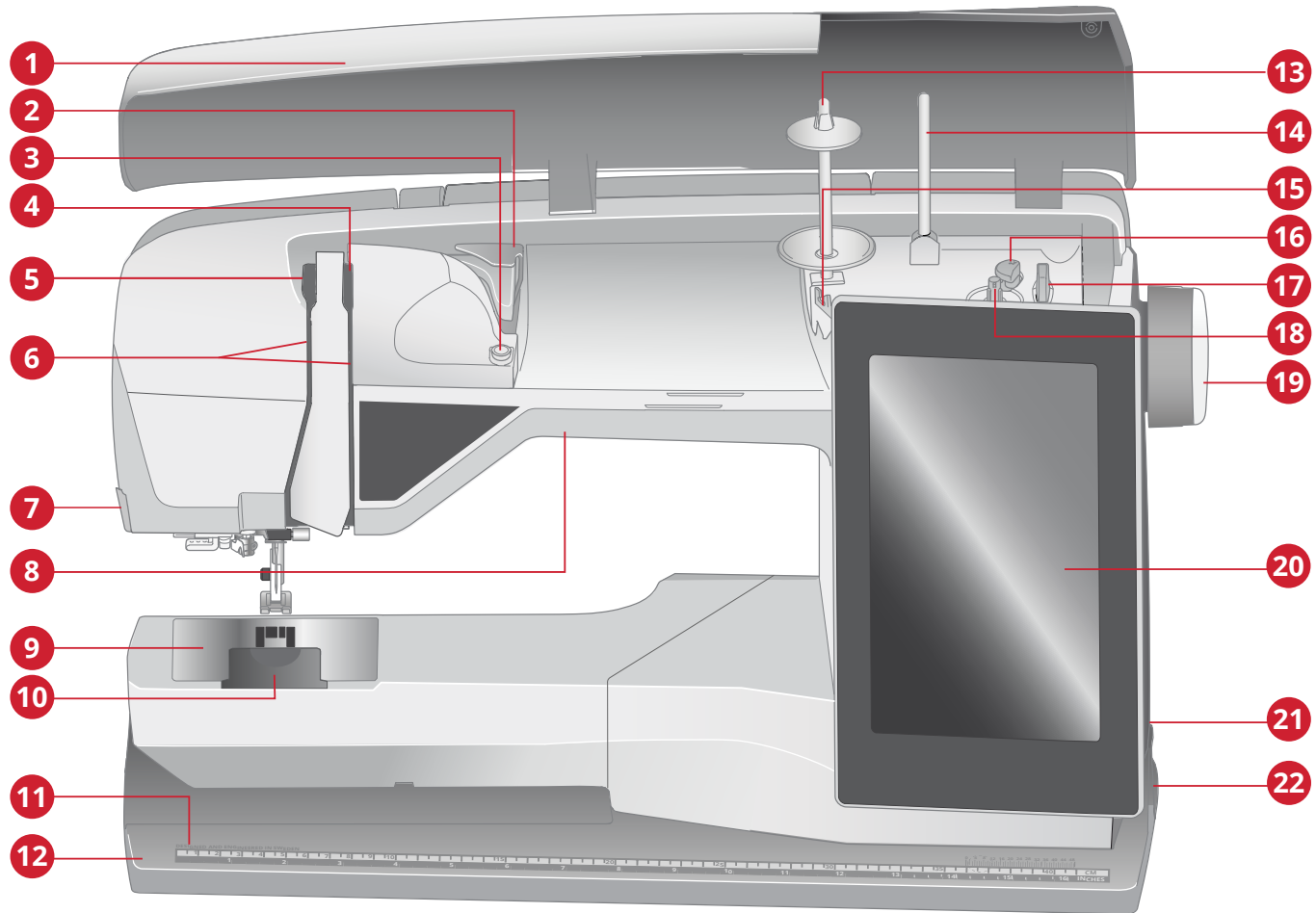
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I Introduction

Machine Overview

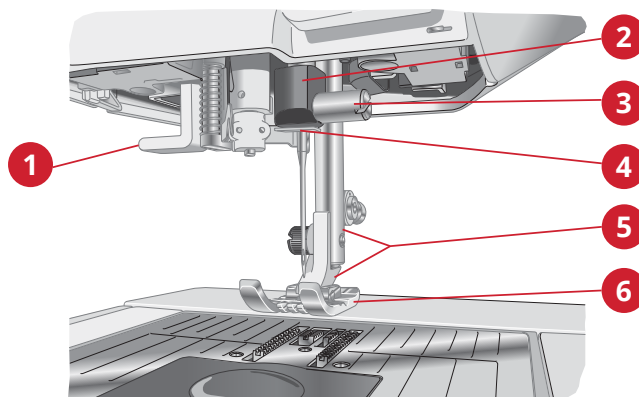
Front



- | | |
|---|---|
| 1. Lid | 13. Main spool pin |
| 2. Pre-tension thread guide | 14. Auxiliary spool pin |
| 3. Thread tension disc for bobbin winding | 15. Bobbin winding thread guides |
| 4. Thread tension discs | 16. Bobbin winding lever |
| 5. Thread take-up lever | 17. Thread cutter for bobbin winding |
| 6. Threading slots | 18. Bobbin winder |
| 7. Thread cutter | 19. Handwheel |
| 8. LED light | 20. Multi-touch screen |
| 9. Needle plate | 21. Built-in USB ports |
| 10. Bobbin cover | 22. ON/OFF switch, connectors for power cord and foot control |
| 11. Built-in ruler with button ruler | |
| 12. Base plate | |

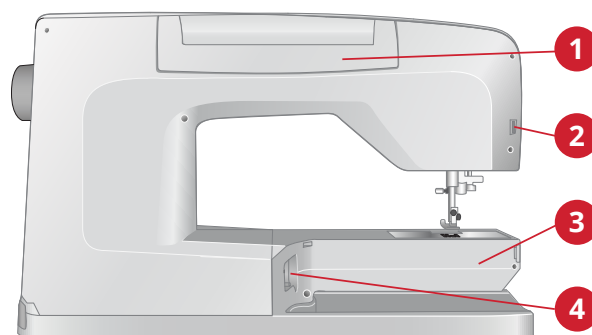
Needle Area

1. Built-in needle threader handle
2. Needle bar
3. Needle clamp
4. Needle thread guide
5. Presser foot bar and presser foot ankle
6. Presser foot



Rear

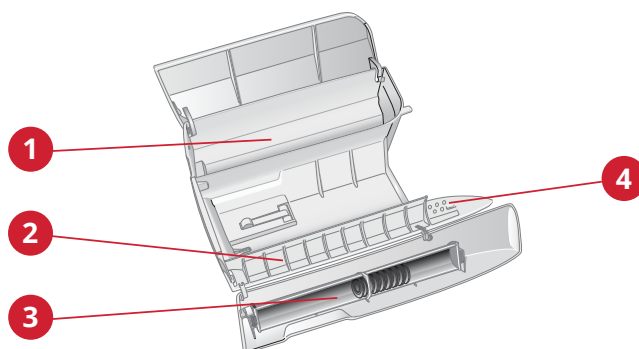
1. Handle
2. Accessory socket
3. Free arm
4. Embroidery unit socket



Accessory Tray

The accessory tray features special compartments for presser feet and bobbins, plus space for needles and other accessories. Store the accessories in the tray so that they are easily accessible.

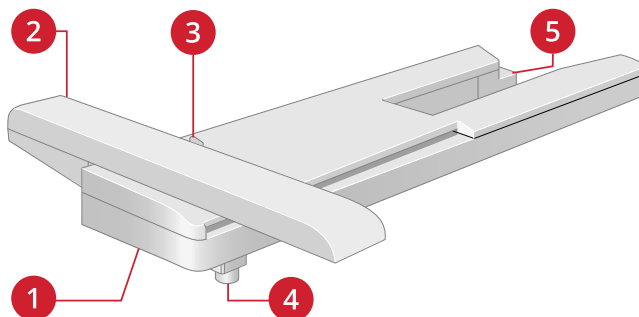
1. Space for accessories
2. Spaces for presser feet
3. Removable bobbin holder
4. Holes for needles



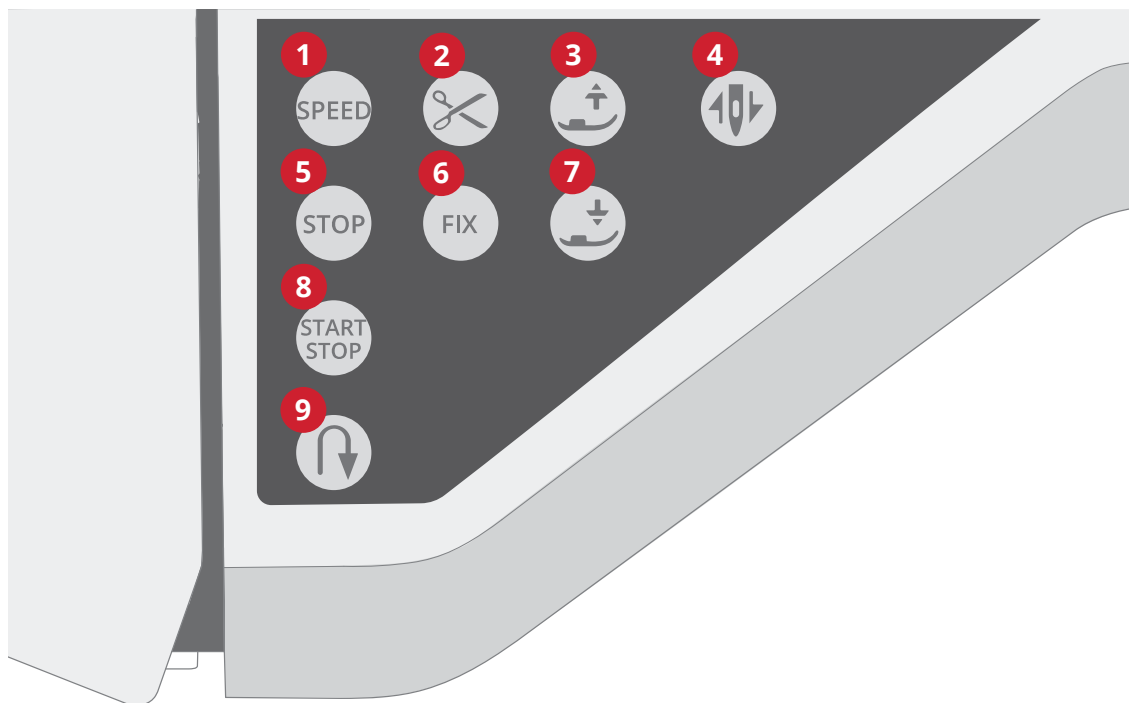
Embroidery Unit

(type BE 17)

1. Embroidery unit release button (underside)
2. Embroidery arm
3. Embroidery hoop attachment
4. Level adjustment feet
5. Embroidery unit plug



Function Buttons



- | | | |
|-----------------------------------|------------------------|--------------------------------|
| 1. Speed | 4. Needle stop up/down | 7. Presser foot down and pivot |
| 2. Selective Thread Cutter | 5. STOP function | 8. Start/stop |
| 3. Presser foot up and extra lift | 6. FIX function | 9. Reverse |

Speed

All stitches and embroideries in your machine have a pre-set, maximum allowed sewing speed to provide a good stitch result.

The machine will never sew faster than the maximum allowed sewing speed for the selected stitch/embroidery. Touch the speed button when the machine is not running and a pop-up on the screen will indicate the speed setting. You can set the speed by touching the slider in the pop-up or by touching the speed button. Each touch of the speed button increases the sewing speed one step. If the machine is set to maximum speed, each touch will instead decrease the sewing speed until minimum speed. Then each touch increases the speed again. If you change the speed setting while sewing no pop-up will appear.

Needle Stop Up/Down

Touch needle stop up/down to set the position of the needle when you stop sewing. The needle will move up or down when you touch the button. When needle stop down is set, a needle icon with an arrow pointing down is shown on the screen.

Tip: You can also tap the foot control to raise or lower the needle once you stop sewing. Tapping the foot control does not change the set stop position.

Cut Function

Touch the cut function button and your machine cuts the upper and bobbin threads, raises the presser foot and needle, and activates the FIX function for the next start.

To cut threads at the end of a stitch or stitch program, touch the cut function button while sewing. A scissor icon will flash on the screen, alerting you that a cut is requested. When the stitch or stitch program is completed, your machine cuts the upper and bobbin threads, raises the presser foot and needle, and activates the FIX function for the next start.

Note: If automatic FIX and selective presser foot lift has been deselected in temporary sewing settings, FIX function will not be activated and presser foot will not be raised when using the cut function.

Touch the cut function button when embroidering and your machine cuts the upper and bobbin threads instantly.



Some optional accessories are attached in the two small circular holes in the needle plate just above the bobbin cover. Do not use the cut function when an accessory is attached in these holes as that may interfere with the automatic thread cutter located under the needle plate.

Reverse

When reverse is active, the reverse indicator is lit. For permanent reverse, touch the reverse button once before starting to sew. The reverse indicator will be lit and the machine sews in reverse until you touch the button again to

cancel. If you press the reverse button while sewing, the machine will sew in reverse for as long as you keep the button pressed.

Reverse is also used when sewing for example manual buttonholes, darning stitches and tapering stitches to step between the parts of the stitch.

START/STOP

Touch the START/STOP button to start and stop the machine sewing or embroidering without using the foot control. Touch START/STOP to begin and touch again to stop.

FIX function

FIX is used to tie off a stitch. Touch the button to turn the function on/off. The indicator next to the FIX function button is lit when the FIX function is active. When beginning to sew with FIX function active, your machine sews a few tie-off stitches and continues with the selected stitch. Touch FIX while sewing and your machine sews a few tie-off stitches and stops automatically.

You can activate automatic FIX in settings, see .

STOP function

Touch STOP when sewing to conclude a stitch or stitch program. Your machine fixes the thread and stops automatically when the stitch or stitch program has been

completed. Touch STOP before starting to sew and your machine sews only one repetition of the stitch. Only one stitch is displayed on the screen. The indicator next to the STOP button is lit when the STOP function is active. To cancel the function, touch STOP again or select a new stitch. The STOP function is cancelled when the stitch is completed.

The STOP function is also used to repeat a sewn length when sewing tapering, (see) and when sewing manual buttonholes.

Presser Foot Down and Pivot

The presser foot is lowered automatically when you start sewing. To lower the presser foot before starting to sew, touch the presser foot down and pivot button. The presser foot will be completely lowered and the machine firmly holds the fabric. Touch presser foot down again to go to pivot position.

In embroidery mode touch presser foot down to lower the presser foot to embroidery position.

Presser Foot Up and Extra Lift

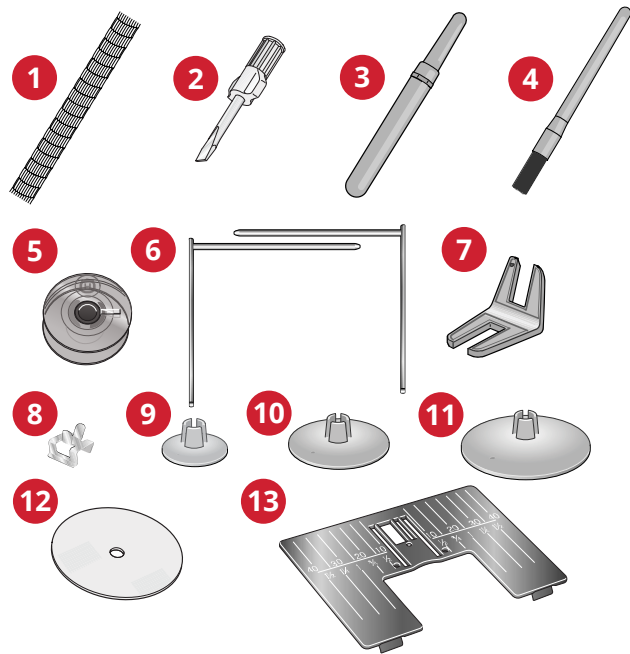
Touch the presser foot up button once to raise the presser foot. Touch again and the presser foot will raise to extra lift position, and the feed teeth will be automatically lowered to make it easier to get heavy fabric under the presser foot.

In embroidery mode, the extra lift makes it easier to insert or remove the hoop.

Accessories

Included Accessories

1. Thread net (2)
2. Screwdriver
3. Seam ripper
4. Brush
5. Bobbins (11)
6. Edge/Quilting guides (used attached to presser foot ankle or together with the Interchangeable Dual Feed Foot)
7. Multipurpose tool/Button reed
8. Hoop clips (16)
9. Spool cap, small (1)
10. Spool cap, medium (1)
11. Spool cap, large (2)
12. Felt pad (2)
13. Straight Stitch Plate

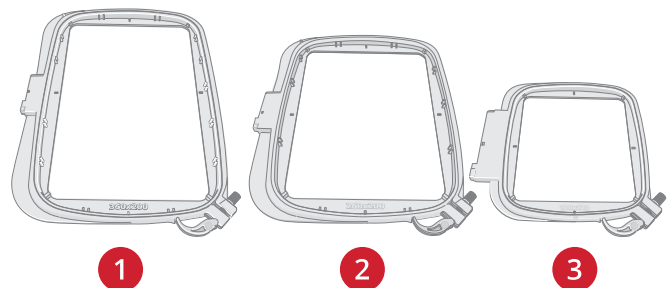


Included Accessories Not in Picture

- Complimentary software (PC and MAC) to download, see .
- Hard cover for machine
- Luggage style carrying bag with packing insert for embroidery unit
- Foot control
- Power cord
- Needles
- DESIGNER SAPPHIRE™ 85 Sampler book
- Scissors
- Pieces of fabric and stabilizer
- Microfiber cloth

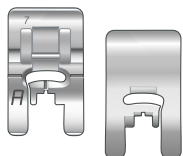
Included Hoops

1. DESIGNER™ Royal Hoop (360x200)
2. DESIGNER™ Crown Hoop (260x200)
3. DESIGNER™ Splendid Square Hoop (120x120)



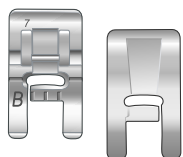
Presser Feet

Note: For the best sewing results, use only presser feet designed for and compatible with your DESIGNER SAPPHIRE™ 85 machine.



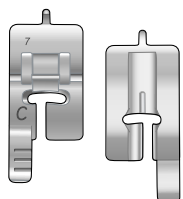
Utility Foot A

Snapped onto the machine upon delivery. Used mainly for straight stitching and zigzag stitching with a stitch length longer than 1.0mm.



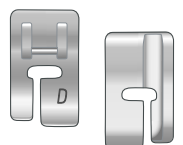
Decorative Stitch Foot B

For sewing close zigzag stitches (satin stitches) with less than 1.0mm stitch length, other utility stitches or decorative stitches, use this foot. The tunnel on the underside of the foot is designed to feed smoothly over the stitches.



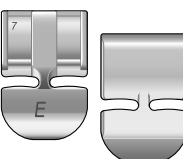
Buttonhole Foot C

For manual buttonholes. This foot has guidelines to determine buttonhole length. The middle measures 5/8" (15mm) from the fabric edge. The two tunnels on the underside of the foot ensure smooth feeding over the buttonhole columns. The finger on the back of the foot holds cording for corded buttonholes.



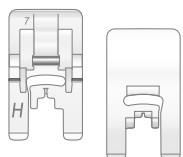
Blindhem Foot D

For blindhem stitches. The inner edge of this foot guides the fabric. The right toe of the foot is designed to ride along the hem edge.



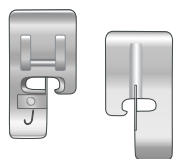
Zipper Foot E

This foot can be snapped on either to the right or to the left of the needle. This makes it easy to sew both sides of the zipper. Move needle position to right or left to sew closer to zipper teeth or for covering large cording.



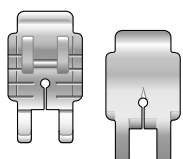
Non-Stick Glide Foot H

This foot, with a non-stick coating underneath, is used when sewing foam, vinyl, plastic, or leather to keep these materials from sticking to the foot.



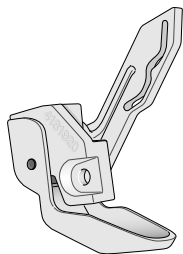
Edging Foot J

Used for overcasting and seam/overcasting, with stitches that have a stitch width of 5.0 and 5.5mm. Stitches form over the pin which prevents puckering at the edge of the fabric.



Quilter's 1/4" Piecing Foot P

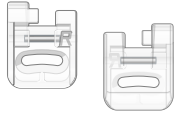
Used when piecing quilt blocks. The foot has distance guideline marks 1/4" (6mm) and 1/8" (3mm) from the needle.



Sensor Q-Foot

The Sensor Q-Foot is recommended for hoop embroidery.

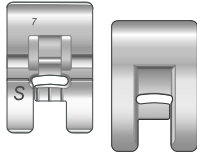
This foot is also used for free motion sewing, free motion quilting and free motion embroidering. When using the Sensor Q-Foot for free motion, select free motion spring action in the free motion options pop-up in sewing mode.



Embroidery/Darning Foot R

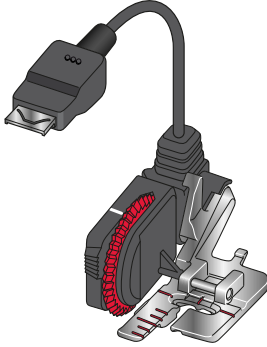
Used for free motion embroidery, free motion quilting, free motion stitching and free motion darning. When using this foot, select free motion floating in the free motion options pop-up in sewing mode.

This foot can also be used for hoop embroidery.



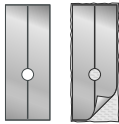
Side-Motion Foot S

Used for side-motion/omnimotion stitches.



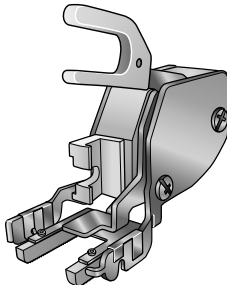
Sensor One-Step Buttonhole Foot

Plug into the machine then enter the desired buttonhole length to sew sensor one-step buttonholes. The middle mark measures a $\frac{5}{8}$ " (15mm) from fabric edge.



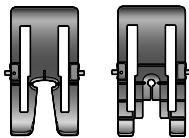
Self-Adhesive Glide Plates

If sewing on foam, vinyl, plastic, or leather, the material can stick to the foot and prevent the sewing machine from feeding properly. When using any of the above materials, sew on a piece of scrap fabric, to make sure the machine feeds smoothly. If not, fasten the self-adhesive glide plate to the underside of the presser foot.






















Interchangeable Dual Feed




















The Interchangeable Dual Feed Foot with changeable presser feet is designed to feed layers of fabric and/or batting evenly. It is perfect for quilting, sewing velvet, stretch fabrics, imitation leathers and fabrics that need precise pattern matching. Snap on the Changeable Straight Stitch Foot when using the straight stitch in the center needle position with a stitch length up to 6mm. Snap on the Changeable Zigzag Foot when selecting stitches up to 7mm wide and 6mm long.
























Stitch Overview

Utility Stitches

Stitch	Nº	Presser foot	Name	Description
	A1	A	Straight stitch, left needle position	For all types of sewing.
	A2	A	Straight stitch, center needle position	For all types of sewing.
	A3	A	Straight stitch, right needle position	For all types of sewing.
	A4	A	Straight stitch with reinforced tie-off	For all types of sewing. Begins and ends with forward and reverse stitches.
	A5	A	Stretch stitch, left needle position	For seams in tricot and stretch fabrics.
	A6	A	Stretch stitch, center needle position	For seams in tricot and stretch fabrics.
	A7	A	Stretch stitch, right needle position	For seams in tricot and stretch fabrics.
	A8	B	Zigzag, left needle position	For sewing on lace, trims and appliqués.
	A9	B	Zigzag, center needle position	For sewing on lace, trims and appliqués.
	A10	B	Zigzag, right needle position	For sewing on lace, trims and appliqués.
	A11	A	Reinforced straight stitch, left needle position	Triple and elastic, for reinforced seams. For top stitch, increase the stitch length.
	A12	A	Reinforced straight stitch, center needle position	Triple and elastic, for reinforced seams. For top stitch, increase the stitch length.
	A13	A	Reinforced straight stitch, right needle position	Triple and elastic, for reinforced seams. For top stitch, increase the stitch length.
	A14	A	Reinforced zigzag stitch	For joining fabric edge to edge or overlapping in leather. For decorative sewing.
	A15	A	Three-step zigzag	For overcasting, mending, sewing on patches and elastic. Suitable for light and medium weight fabrics.
	A16	J	Seam/overcast stitch	Seam and overcast in one step along the edge or trim later. For light stretch and non-stretch fabrics.
	A17	B	Stretch seam/overcast stitch	Seam and overcast in one step along the edge or trim later. For medium and heavy stretch fabrics.
	A18	B	Double overlock stitch	Seam and overcast in one step along the edge or trim later. For heavy stretch and heavy woven fabrics.
	A19	B	Overlock stitch	Seam and overcast in one step along the edge or trim later. For medium stretch fabrics.

Stitch	№	Presser foot	Name	Description
	A20	B	Flatlock stitch	Decorative hems and overlapped seams, belts and bands. For medium/heavy stretch fabrics.
	A21	D	Stretch blind hem stitch	Blind hems in medium and heavy stretch fabrics.
	A22	D	Woven blind hem stitch	Blind hems in medium and heavy woven fabrics.
	A23	A	Shell edge stitch	For edging, sewing over the edge on light woven fabrics. Sew woven fabrics on bias.
	A24	A	Four-step zigzag	For overcasting, mending, sewing on patches and elastics on loosely woven fabrics.
	A25	B	Elastic/casing stitch	For overlapped seams in tricot. To sew casing over narrow elastic.
	A26	A	Serpentine stitch	For mending and elastic applications.
	A27	B	Elastic or smocking stitch	Sew over two rows of elastic thread for elastic shirring.
	A28	B	Bridging stitch	For joining two pieces of fabric with finished edges and for elastic shirring.
	A29	J	Three-step zigzag	For overcasting, mending, sewing on patches and elastic. Suitable for light and medium weight fabrics.
	A30	A	Two-step zigzag	For joining two pieces of lace, and for elastic shirring.
	A31	B	Bartack	Reinforce pockets, shirt openings, belt loops as well as at lower end of a zipper.
	A32	B	Bartack, manual	Reinforce pockets, shirt openings, belt loops as well as at lower end of a zipper.
	A33	A	Darning stitch (forward and backward)	Darn and mend small holes in work clothes, jeans, tablecloths and linen towels. Stitch over hole, touch reverse for continuous darning and auto stop.
	A34	A	Darning stitch (side to side)	For mending small tears.
	A35	A	Reinforced darning stitch	Darn and mend work clothes, jeans, tablecloths and linen towels. Stitch over hole, touch reverse for continuous darning and auto stop.
	A36	B	Darning stitch (four-step)	A group of four stitches perfect for mending small tears. Stitch #1 and #3 are sewn in a forward motion, stitch #2 and #4 are sewn backwards. To change stitch and direction touch the reverse button. <i>Tip: Press fusible interfacing on the wrong side before mending the tear.</i>
	A37	A	Belt loop stitch	For securing belt loops.
	A38	A	Basting stitch	For temporary seams. The long stitches and reduced tension make the seams easy to unravel.

Stitch	№	Presser foot	Name	Description
	A39	A	Straight basting stitch	To baste, press the foot control and the machine will make two stitches, stop and raise the foot. When the presser foot lifts, move the fabric to the next baste position and press the foot control. Feed teeth lowered automatically.
	A40	A	Zigzag basting	To baste, press the foot control and the machine will make two stitches, stop and raise the foot. When the presser foot lifts, move the fabric to the next baste position and press the foot control. Feed teeth lowered automatically.
	A41	A	Gathering stitch	No fix stitch in the beginning of the seam for easy gathering.
	A42	Sensor Buttonhole foot/C	Wide bartack buttonhole	For medium and heavy fabrics with extra cutting space.
	A43	Sensor Buttonhole foot/C	Bartack buttonhole	For most fabric weights.
	A44	Sensor Buttonhole foot/C	Rounded bartack buttonhole	For light weight fabrics.
	A45	Sensor Buttonhole foot/C	Round end buttonhole	For blouses and children's garments.
	A46	Sensor Buttonhole foot/C	Keyhole buttonhole	Square end for tailored jackets, coats, etc.
	A47	Sensor Buttonhole foot/C	Tapered keyhole buttonhole	Tapered end for tailored garments.
	A48	Sensor Buttonhole foot/C	Decorative fashion buttonhole	For most fabric weights.
	A49	Sensor Buttonhole foot/C	Heavy duty buttonhole	With reinforced bartacks
	A50	Sensor Buttonhole foot/C	Heavy reinforced buttonhole	For utility and heavy fabrics.
	A51	Sensor Buttonhole foot/C	Medium Reinforced Buttonhole	For medium and heavy fabrics.
	A52	C	Medium reinforced decorative buttonhole	For medium fabrics.
	A53	Sensor Buttonhole foot/C	Heirloom buttonhole	For hand look on fine and delicate fabrics. <i>Tip: For jeans buttonholes, increase length and width of the buttonhole. Use thicker thread.</i>
	A54	Sensor Buttonhole foot/C	Rounded heirloom buttonhole	For hand look on fine and delicate fabrics.

Stitch	№	Presser foot	Name	Description
	A55	A	Leather buttonhole (straight stitch)	For leather and suede.
	A56	A	Bound buttonhole (straight stitch)	With extra cutting space for bound buttonholes.
	A57	-	Automatic button sewing	For sewing on buttons.
	A58	B	Round eyelet	For belts, laces, etc.
	A59	B	Teardrop eyelet	For laces, embellishments.

Stitch Menu Overview

There are several different stitch menus with stitches for all purposes. For detailed description of a stitch, use the quick help function, see .

Stitch Menu Name	Description
A — Utility Stitches	Stitches for garment sewing and mending.
B — Appliqué Stitches	For sewing appliqués with different effects.
C — Heirloom Stitches	Decorative stitches for traditional heirloom sewing. Stitches for hemstitching, smocking and sewing on laces and trims.
D — Quilt Stitches	Stitches for all types of quilting techniques.
E — Crafting Stitches	Decorative stitches to embellish crafts.
F — Decorative Stitches	For decorative sewing.
G — Vintage Stitches	A selection of quilt stitches for crazy patch quilting and decorative stitching.
H — Children Stitches	Stitches suitable for sewing on children's clothes and projects.
J — Scallop Stitches	Create scallop details and finish edges with beautiful scallop stitches.
K — Omnimotion Stitches	Program these stitches into an unlimited number of combinations. Stitches are formed with side motion. The stitch width can be up to 49mm wide.
L — Dimensional Stitches	Includes three types of stitches: appliqué and pop-up stitches, combinations of these two types, and sequin stitches.
M — Theme Stitches	Each stitch number on this menu contains a group of four stitches designed to be sewn out together in random combinations. Change to the next stitch in the selected group by touching the reverse button.
N — Embellished Stitches	Decorative stitches that can be used as they are, or further embellished after sewing. Use quick help for detailed information.
O — Single Motif Stitches	Single stitches for embellishment. The machine stops after one sewn repetition.
P — Specialty Stitches	Sew special techniques including candlewicking, edging and more. Extra accessories may be needed. Use quick help for detailed information.
Q — Decorative Tapering Stitches	Decorative stitches with tapering.
R — Pictogram Stitches	Pictogram satin elements to program original satin stitch designs.
S — 4-Way Stitches	Four directional sewing and patching using the free arm.
T — 8-Way Stitches	Straight stitch and reinforced straight stitch in eight different directions without turning the fabric. Can be programmed with decorative stitches to create unique borders.

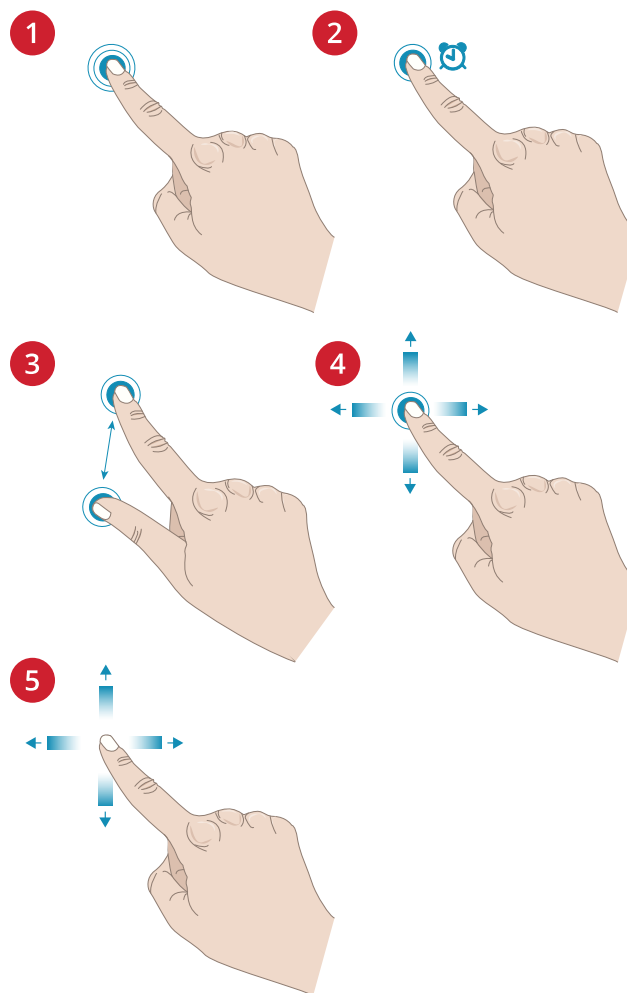
Alphabets

Stitch fonts are available in block, outline, brush line, script and Cyrillic alphabets.

Basic Gestures for the Multi-Touch Screen

Easily navigate on the multi-touch screen with the gestures described below.

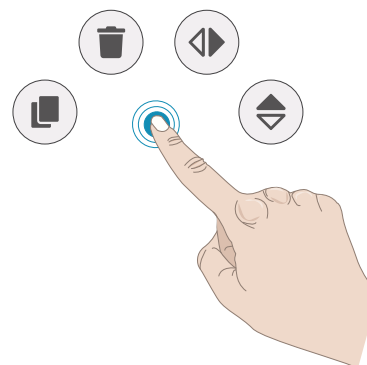
1. *Touch* — Touch once on a button or setting on the screen to select.
2. *Touch & Hold* — Touch once without releasing for a few seconds to touch & hold. Used on some buttons and screen areas to access more options.
3. *Pinch/Stretch* — Touch with two fingers at the same time and without releasing increase/decrease the distance between the fingers to stretch (zoom in) or pinch (zoom out).
4. *Touch and Move* — Touch once on a selected design and, without releasing, move your finger to a different position on the screen. Used e.g. for moving a design in the embroidery area.
5. *Swipe* — Touch, move and release your finger in a swift gesture to swipe. Left-right/right-left swipe is used e.g. to scroll between stitch menus. Top-bottom/bottom-top swipe is used e.g. to scroll within a stitch menu.



Smart Toolbox

Smart toolbox is available on a stitch or program in the sewing area or on a design, stitch or program in the embroidery area. Touch & hold on a stitch program or design to open the smart toolbox, move your finger to highlight the option you want to use and release to select the option.

The options included in the smart toolbox varies depending on where and on what it is used. Examples of options are duplicate, delete, mirroring and edit.



2 Preparations

Unpacking Machine and Embroidery Unit

After lifting the machine out of the box and removing all packing material and the plastic bag, wipe the machine, particularly around the needle and needle plate to remove any oil before sewing.

When unpacking the embroidery unit, do not throw away the black styrofoam inside the embroidery unit carrying bag, as this is designed for storing the embroidery unit when not in use.

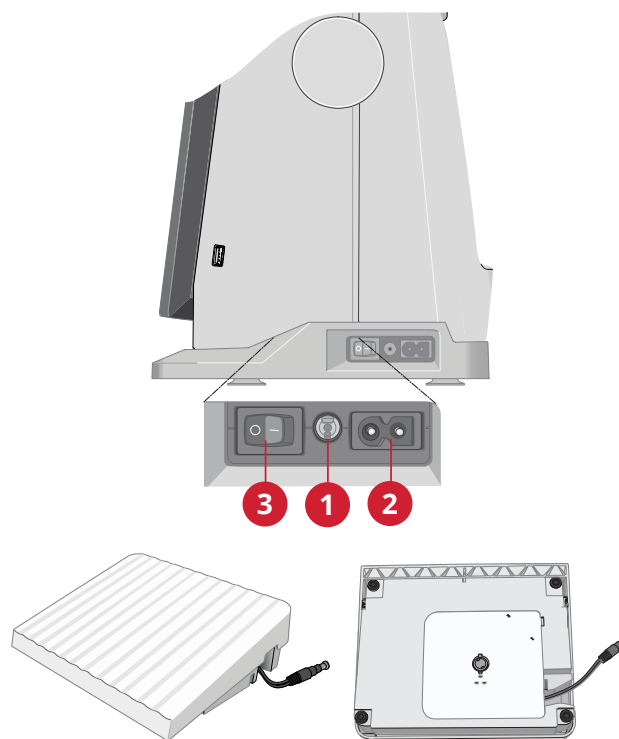
Note: Your DESIGNER SAPPHIRE™ 85 machine is adjusted to provide the best stitch result at normal room temperature. Extreme hot and cold temperatures can affect the sewn result.

Connect the Power Cord and Foot Control

Among the accessories you will find the power cord and the foot control.

Note: Before plugging in the foot control, check to ensure that it is type "FR5" (see underside of foot control).

1. Pull out the cord from the foot control. Connect the foot control cord to the front socket on the bottom right side of the machine.
2. Connect the power cord to the rear socket on the bottom right side of the machine. Plug the cord into the wall socket.
3. Press the ON/OFF switch to "I" to turn on power and light.



For the USA and Canada

This sewing machine has a polarized plug (one blade wider than the other). To reduce the risk of electric shock, this plug is intended to fit in a polarized outlet only one way. If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install the proper outlet. Do not modify the plug in any way.

Pack Away After Sewing

1. Press the ON/OFF switch to "O".
2. Unplug the cord from the wall socket and then from the machine.
3. Unplug the foot control cord from the machine. Pull the cord gently and release. The cord will retract into the foot control.
4. Place all accessories in the accessory tray. Slide the tray on to the machine around the free arm.
5. Place the foot control in the space above the free arm.
6. Put on the hard cover.

Tip: The user's guide and power cord can be stored in the back pocket of the hard cover.

USB Port

Your machine has a USB port for connecting USB devices such as a memory stick. USB plugs can only be inserted one way – do not force them into the port! To remove, carefully pull the USB device straight out.

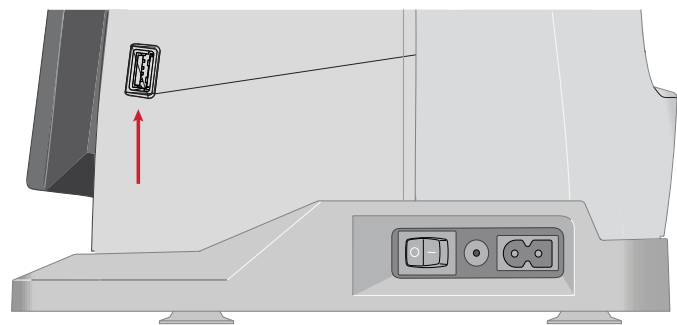
Note: Make sure that the USB stick you use has the format FAT32.

Using a USB device

The external device button in file manager is only active when a device is connected to the machine USB port.

Note: Do not remove the USB device if a loading spinner is shown on the screen or while the file manager is shown. Removing the device at that time can damage the files on your USB device.

Read more in .



Getting Started with WiFi and mySewnet™ Cloud

Follow the steps below to connect your machine.

Connect to a Network with WiFi

Touch the WiFi button in the top left corner of the screen. Select from the list of available networks. If your network is password protected, you will be prompted to enter the password to connect.

For more information, see .



WiFi button

Connect to mySewnet™ Cloud

When you have established a WiFi connection, touch the cloud button next to the WiFi button on the screen. Touch the button to sign in. A web view opens where you can log in. If you do not have a user name and password, select Register to create an account.

For more information, see .



mySewnet™ cloud button

LED Lights

Your machine has LED lights which distribute the light evenly over the sewing area and eliminate shadows. You can adjust the brightness of the light in the settings menu, see .

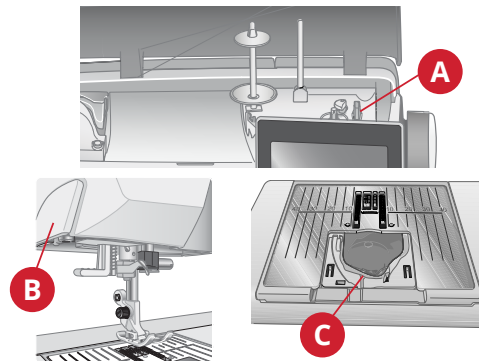
Free Arm

To use the free arm, slide off the accessory tray. When attached, a hook keeps the accessory tray locked to the machine. Remove the tray by sliding it to the left.

Manual Thread Cutter

There are three manual thread cutters on your machine.

- The first one (A) is close to the bobbin winder spindle for cutting the thread before and after winding.
- The second one (B) is on the left side of the machine for manually cutting top and bobbin threads. Pull both threads into the cutter from the back to the front and pull down quickly.
- The third one (C) is next to the bobbin area for cutting the bobbin thread after placing the bobbin in the machine.



Thread Sensor

- If the needle thread breaks or bobbin thread is running low, the machine stops and a pop-up appears on the screen. If needle thread breaks: Remove the thread completely, re-thread the machine and touch OK in the pop-up.
- If bobbin thread is running low: You can continue sewing without closing the pop-up before the bobbin thread runs out completely. This gives you an opportunity to plan where to stop and change the bobbin. When the bobbin is replaced with a full one, touch OK in the pop-up.

Spool Pins

Your machine has two spool pins; a main spool pin and an auxiliary spool pin.

The spool pins are designed for all types of thread. The main spool pin is adjustable and can be used both in a horizontal position (the thread reels off the spool) and a vertical position (the thread spool rotates). Use the horizontal position for regular sewing threads and the vertical position for large spools or specialty threads.

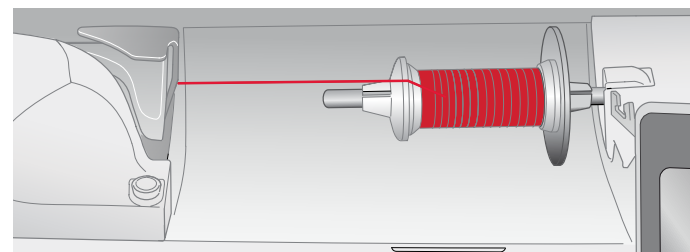
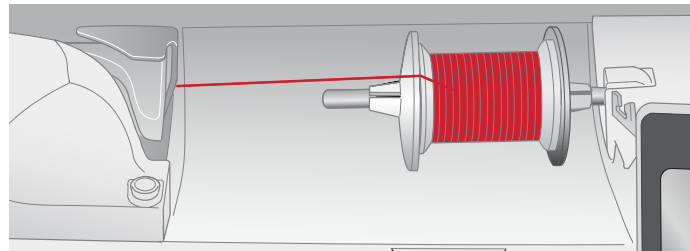
Horizontal Position

Place a spool cap and the thread spool on the spool pin. Make sure that the thread reels off the spool counter clockwise and slide on a second spool cap.

Note: Not all thread spools are manufactured in the same way. If you experience problems with the thread, turn it in the opposite way or use the vertical position.

Use a spool cap slightly larger than the thread spool. For narrow thread spools, use a smaller spool cap in front of the spool. For large thread spools, use a larger spool cap in front of the spool.

The flat side of the spool cap should be pressed firmly against the spool. There should be no space between the spool cap and the thread spool.

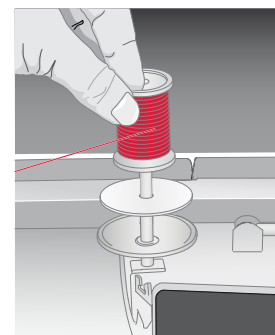


Vertical Position

Raise the spool pin to the vertical position. Slide on the large spool cap. For spools smaller than the medium size spool cap, place a felt pad under the thread spool to prevent the thread from reeling off too fast. Place thread spool on the spool pin.

Note: Do not place a spool cap on top of the vertical spool pin as it may prevent the spool from rotating.

Note: Push down the spool pin until it locks in place. This will prevent the spool pin from being folded down while sewing. To place it in horizontal position, pull the spool pin up and then fold it.

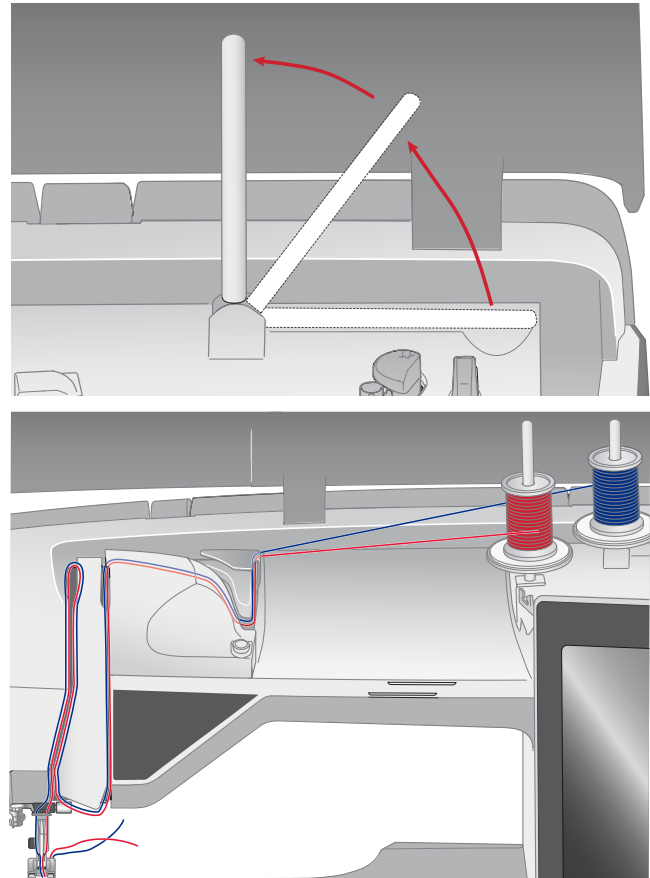


Auxiliary Spool Pin

The auxiliary spool pin is used when winding a bobbin from a second spool of thread or for a second spool when sewing with a twin needle.

Raise the auxiliary spool pin. Slide on a large spool cap and place a felt pad under the thread spool. Place thread spool on auxiliary spool pin.

Note: When sewing with two needle threads, deactivate deLuxe™ Stitch System.



Threads

There are many threads on the market today developed for different purposes.

All Purpose Sewing Thread

All purpose sewing thread is made of synthetic, cotton or cotton covered polyester. This type of thread is used for most sewing projects, including garments, home decor, and quilting.

Embroidery Thread

Embroidery thread is made from a variety of fibers: rayon, polyester, acrylic or metallic. These threads create a smooth glossy appearance for embroidery and other decorative stitching.

Embroidery thread is not typically used in the bobbin unless both sides of the project will be seen. A light weight, embroidery bobbin thread is often used in the bobbin instead. The lighter weight thread does not build up under the embroidery.

Note: When using a metallic or a flat film thread for embroidery, you may need to use a needle with a larger eye and lower the embroidery speed.

Transparent Thread

Transparent thread, also called monofilament thread, is a single clear synthetic thread. It is used for quilting and other decorative sewing. When winding a bobbin, wind at half speed and fill the bobbin half full.

Needles

The sewing machine needle plays an important role in successful sewing. Use only quality needles. We recommend needles of system 130/705H. The needle package included with your machine contains needles of the most frequently used sizes.



*Be sure to match the needle to the thread you are using.
Heavier threads require a needle with a larger needle eye.*

Universal Needle

Universal needles have a slightly rounded point and come in a variety of sizes. For general sewing in a variety of fabric types and weights.



Stretch Needle

Stretch needles have a special scarf to eliminate skipped stitches when there is a flex in the fabric. For knits, swimwear, fleece, synthetic suedes and leathers.



Embroidery Needle

Embroidery needles have a special scarf, a slightly rounded point and a slightly larger eye to avoid damage to thread and materials. Use with metallic and other specialty threads for embroidery and decorative sewing.



Denim Needle

Denim needles have a sharp point to penetrate tightly woven fabrics without deflecting the needle. For canvas, denim, microfibers.



Wing Needle

Wing needles have wide wings on the side of the needle to poke holes in the fabric when sewing entredeux and other hemstitches on natural fiber fabrics.

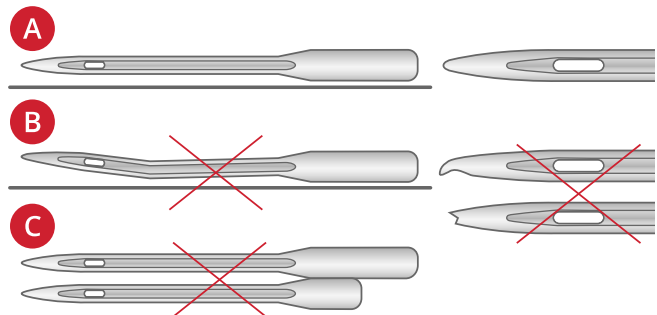


Important Needle Information

Change the needle often. Always use a straight needle with a sharp point (A).

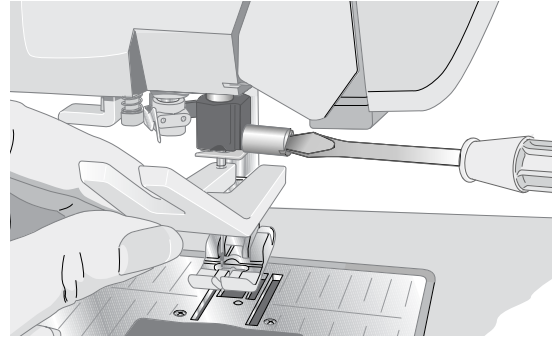
A damaged needle (B) can cause skipped stitches, breakage or snapping of the thread. It can also damage the needle plate.

Do not use asymmetrical twin needles (C), they can damage your sewing machine.



Changing the Needle

1. Use the hole in the multipurpose tool to hold the needle.
2. Loosen the needle screw with the screwdriver.
3. Remove the needle.
4. Insert the new needle using the multipurpose tool. Push the new needle upwards with the flat side away from you until it will go no further.
5. Tighten the needle screw with the screwdriver.

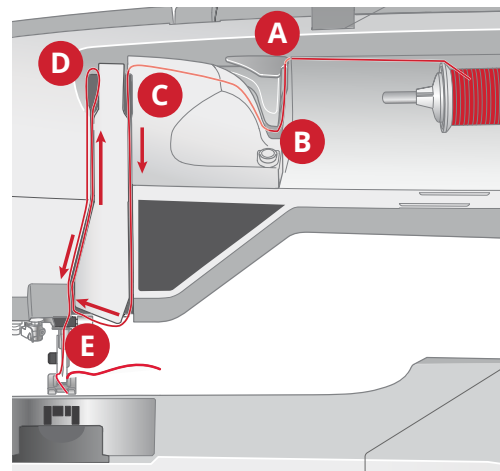


Threading the Upper Thread

Make sure that the presser foot is raised and the needle is in the up position.

Horizontal Spool Pin

1. Hold the thread near the spool using your right hand.
2. Use your left hand to bring the end of the thread over and behind the Pre-Tension Thread guide (A) and under the thread guide (B). Bring the thread between the thread tension discs (C).
3. Continue threading in the direction indicated by the arrows. Bring the thread from the right when threading into the slot on the take-up lever (D).
4. Take the thread down into the last thread guide (E) just above the needle.



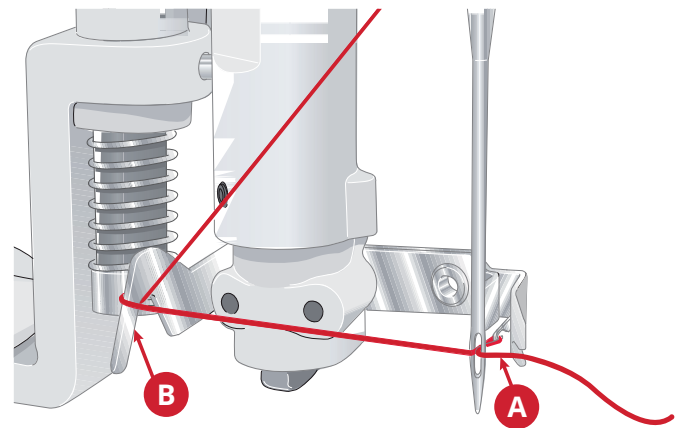
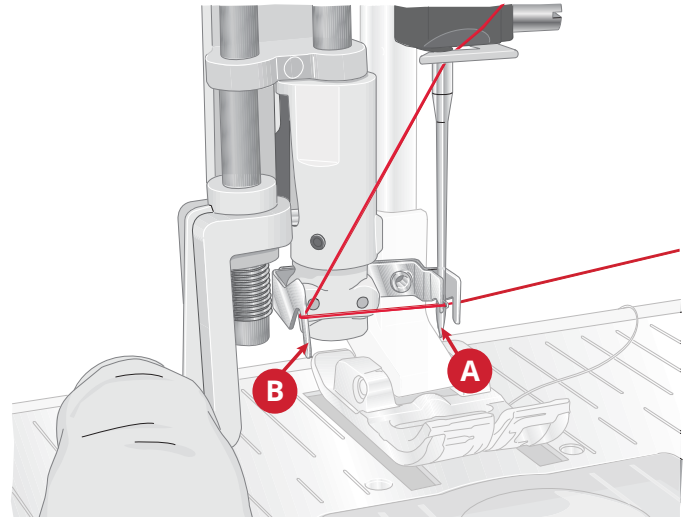
Needle threader

The needle threader allows you to thread the needle automatically. The needle must be in the up position to use the built-in needle threader.

1. Lower the presser foot.
2. Use the handle to pull the needle threader all the way down. The threader hook (A) swivels through the needle eye.
3. Place the thread from the back over the hook (B) and under the thread hook (A).
4. Let the needle threader gently swing back. The hook pulls the thread through the needle eye and forms a loop behind the needle. Pull the thread loop out behind the needle.

Note: The needle threader is designed to be used for size 70-120 needles. You cannot use the needle threader for needles size 60 or smaller, the wing needle, twin needle, triple needle or when the Sensor One-Step buttonhole foot is attached. There are also some optional accessories that require manual threading of the needle.

When threading the needle manually, make sure that the needle is threaded from front to back. The bobbin cover can be used as a magnifying glass to make threading easier.



Selecting Correct Thread/Needle Combination

Fabric		Thread	Needle
Woven light	Chiffon, organza, batiste, challis, crepe de chine, etc.	Light weight threads: <ul style="list-style-type: none"> • fine cotton, polyester or silk sewing thread • rayon embroidery thread 	Universal 130/705H 70/10-80/12
Woven medium	Calico, quilting fabrics, crepe, broadcloth, velvet, etc.	Medium weight threads: <ul style="list-style-type: none"> • fine/normal cotton or polyester sewing thread • rayon embroidery thread 	Universal 130/705H 80/12-90/14
Woven heavy	Denim, tweed, canvas, terrycloth, etc.	Medium/heavy weight threads: <ul style="list-style-type: none"> • normal cotton or polyester sewing thread • top stitching thread • rayon embroidery thread 	Universal 130/705H 90/14-110/18 Denim 130/705H-J 90/14
Stretch light	Tricot, single knit jerseys, etc.	Light weight threads: <ul style="list-style-type: none"> • fine cotton or polyester sewing thread • rayon embroidery thread 	Stretch 130/705H-S 75/11
Stretch medium	Sweater knits, double knit, velour, swimwear, etc.	Medium weight threads: <ul style="list-style-type: none"> • normal cotton or polyester sewing thread • rayon embroidery thread 	Stretch 130/705H-S 90/14
Stretch heavy	Sweater knits, fleece, etc.	Medium weight threads: <ul style="list-style-type: none"> • normal cotton or polyester sewing thread • rayon embroidery thread 	Stretch 130/705H-S 90/14
Leather	Suede and leather	Medium weight threads: <ul style="list-style-type: none"> • normal cotton or polyester sewing thread • rayon embroidery thread 	Stretch 130/705H-S 90/14
Vinyl	Vinyl, faux leather and suede	Medium weight threads: <ul style="list-style-type: none"> • normal cotton or polyester sewing thread • rayon embroidery thread 	Universal 130/705H 80/12

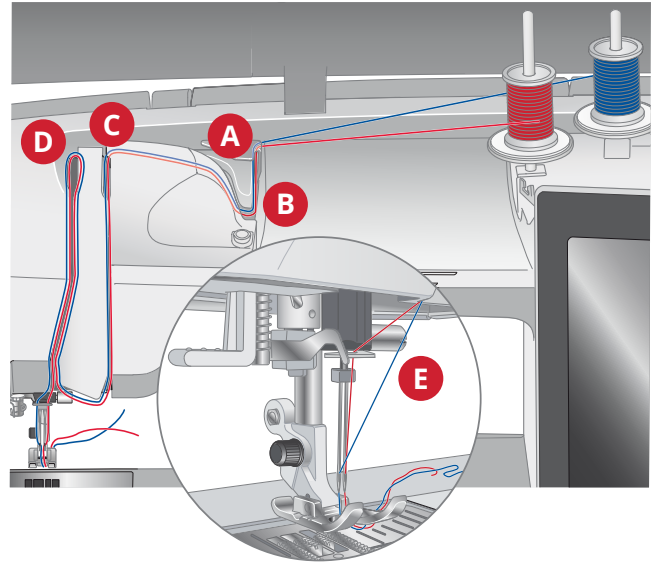
Note: Specialty fabrics and threads may require a special needle for best stitch results. Refer to your HUSQVARNA® VIKING® retailer for more information on needle types and sizes for your sewing needs.

Threading for Twin Needle

Replace the sewing needle with a twin needle. Make sure the presser foot is raised and the needle is in the up position.

1. Raise the horizontal spool pin to the vertical position. Raise the auxiliary spool pin to the vertical position. Slide a large spool cap and a felt pad on each one. Place the thread spools on the spool caps.
2. Bring the threads over and behind the Pre-Tension Thread guide (A) and under the thread guide (B). Follow the thread slot and place the thread between the thread tension discs (C). Make sure that one thread is on each side of the tension discs.
3. Thread down through the right-hand threading slot and then upwards through the left-hand threading slot.
4. Bring the threads from the right into the take-up lever (D) and down in the left-hand threading slot. Make sure that one thread is inside the needle thread guide (E) and the other one outside. Also make sure that the threads do not become twisted together.

Note: The weight and irregular surface of specialty threads such as metallic increases the amount of friction on the thread. By reducing the tension, the risk of needle breakage and thread breakage is reduced.



Bobbin Winding

Bobbin Winding through the Needle

Make sure that the presser foot and the needle are in the up position.

1. Place an empty bobbin on the bobbin spindle on the top of the machine. The bobbin only fits on one way, with the logo facing up. Use only original HUSQVARNA® VIKING® bobbins.
2. Thread the machine with the main spool pin in the horizontal position.

Note: If the thread spool is too large to be in horizontal position, wind the bobbin as described under “Winding Specialty Threads” below.

3. Bring the thread up from the needle, under the presser foot and up to the right through thread guide (A).

Note: Use a metal presser foot when bobbin winding from the needle.

4. Guide the thread through the hole in the bobbin from the inside to the outside.

Note: When using earlier version of HUSQVARNA® VIKING® bobbins that do not have a hole, wind a few turns of thread clockwise on the bobbin to get started.

5. Push the bobbin winding lever towards the bobbin to wind. A pop-up message appears on screen. To adjust winding speed drag the slider. Stop and start the bobbin winding with the on-screen buttons. Hold the end of the thread firmly when starting to wind. Once the bobbin begins to wind, cut the excess thread.

Note: It is important that you cut the thread end close to the bobbin.

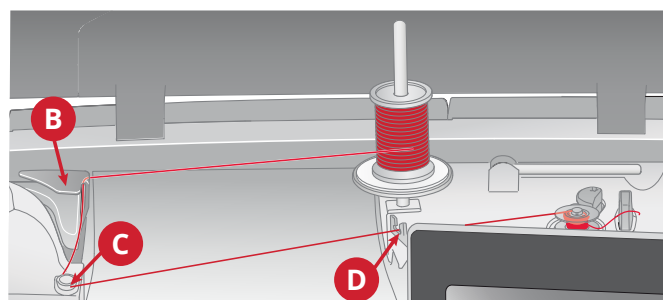
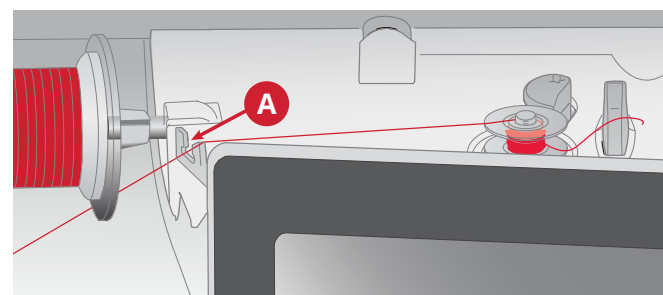
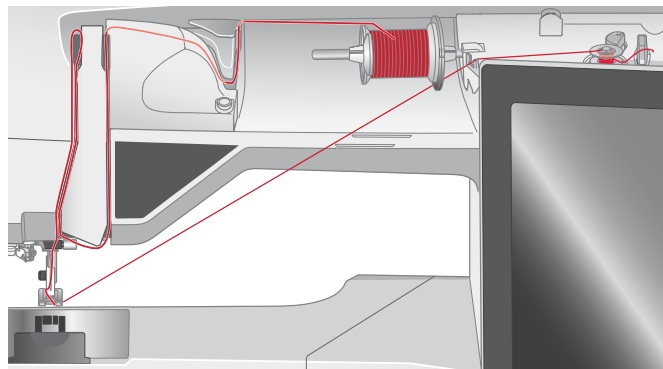
When the bobbin is full, the bobbin winder lever will move back and the winding will stop automatically. The pop-up message closes. Remove the bobbin and cut the thread using the bobbin winding thread cutter.

Winding Specialty Threads

We do not recommend winding speciality threads such as “invisible” or other stretchy threads, metallic or flat metallic threads through the needle.

Always wind these threads at minimum speed.

1. Place an empty bobbin on the bobbin spindle at the front of the machine. The bobbin only fits on one way, with the logo facing up. Use only original HUSQVARNA® VIKING® bobbins.
2. Place the large spool cap and a felt pad under the spool on the main spool pin set in the vertical position.
3. Bring the thread over the Pre-Tension Thread guide (B) and down around the thread tension disc (C), then through thread guide (D) as illustrated.
4. See Bobbin Winding through the Needle, step 4-5.

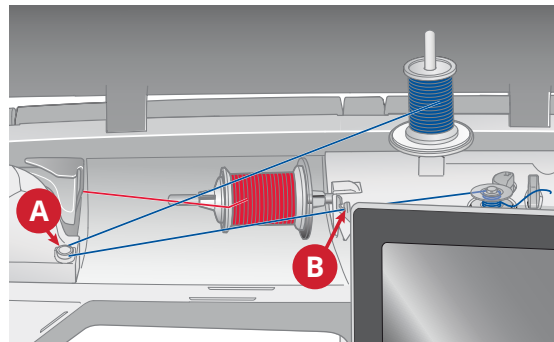


Bobbin Winding while Embroidering or Sewing

1. Raise the auxiliary spool pin. Place the large spool cap, felt pad and thread spool on the spool pin.
2. Bring the bobbin thread around the thread tension disc (A) and through the thread guide (B) as illustrated.
3. Guide the thread through the hole in the bobbin from the inside to the outside.
4. Push the bobbin winder lever towards the bobbin to wind. A pop-up message appears on screen. To adjust winding speed drag the slider with your stylus. Stop and start the bobbin winding with the on-screen buttons. Hold the end of the thread firmly when starting to wind.

When the bobbin is full, the bobbin winder lever will move back and the winding will stop automatically. The pop-up message closes. Remove the bobbin and cut the thread using the bobbin winding thread cutter.

Note: Make sure that the thread does not touch the cap of the horizontal spool pin when winding the bobbin. If it does, place the cap and spool higher on the vertical spool pin.



Inserting the Bobbin

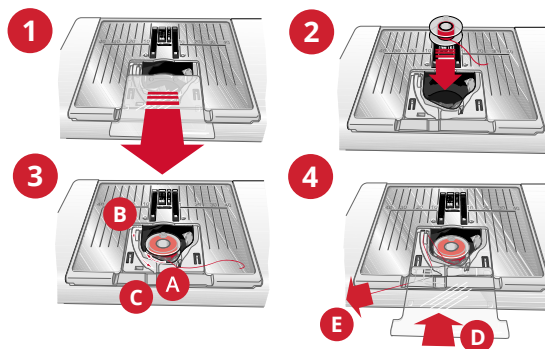


Use only the bobbins designed for your DESIGNER SAPPHIRE™ 85 machine.

1. Remove the bobbin cover by sliding it towards you.
2. Place the bobbin in the bobbin case. It drops in only one way with the logo facing up. The thread unreels from the left of the bobbin. The bobbin will then rotate counter-clockwise when you pull the thread.
3. Place your finger on the bobbin to keep it from turning as you pull the thread firmly to the right and then to the left into the tension spring (A) until it “clicks” into place.

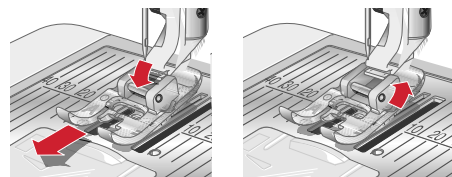
Continue threading around (B) and to the right of the thread cutter (C).

4. Slide on the bobbin cover (D). Pull the thread to the left to cut (E).



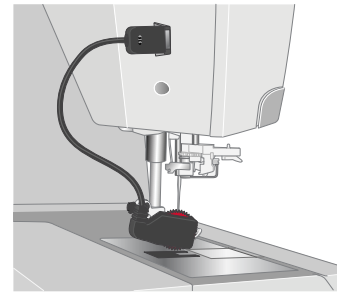
Changing the Presser Foot

1. Make sure that the needle is in the highest position. Pull the presser foot down and towards you.
2. Line up the cross pin on the foot with the gap in the presser foot ankle. Push the foot into the gap until the foot snaps into place.



Attaching the Sensor One-Step Buttonhole Foot

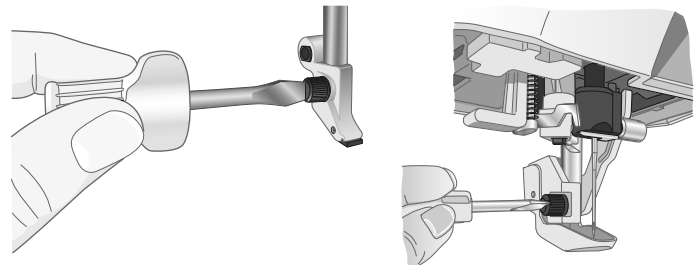
1. Snap on the Sensor One-Step Buttonhole Foot.
2. Insert the plug, with the three dots facing out, into the accessory socket at the back of the sewing head.



Attaching the Sensor Q-Foot

1. Using the screwdriver, remove the presser foot ankle.
2. Place the Sensor Q-foot from behind, and lower the needle into the opening of the foot by turning the handwheel towards you.

Position the foot onto the presser foot bar so that the hole on the foot matches the hole on the presser foot bar. The arm of the presser foot should rest on top of the needle screw. Insert the screw and tighten the screw with a screwdriver.

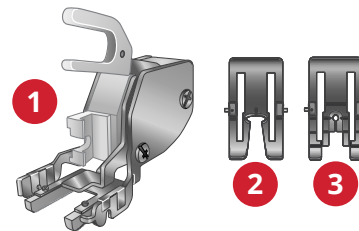


Interchangeable Dual Feed Foot

The Interchangeable Dual Feed Foot is designed to feed layers of fabric and/or batting evenly. It is perfect for quilting, sewing velvet, stretch fabrics, imitation leathers and fabrics that need precise pattern matching. Snap on the Changeable Straight Stitch Foot when using the straight stitch in the center needle position with a stitch length up to 6mm. Snap on the Changeable Zigzag Foot when selecting stitches up to 7mm wide and 6mm long.

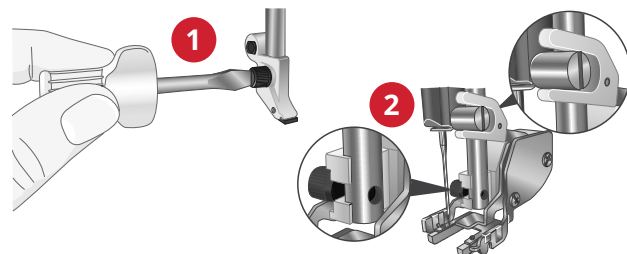
1. Dual Feed
2. Changeable Zigzag Foot Plate
3. Changeable Straight Stitch Foot Plate

Note: Look for optional dual feed accessories in the online accessory user's guide at www.husqvarnaviking.com or at your HUSQVARNA® VIKING® retailer.



Attaching the Dual Feed

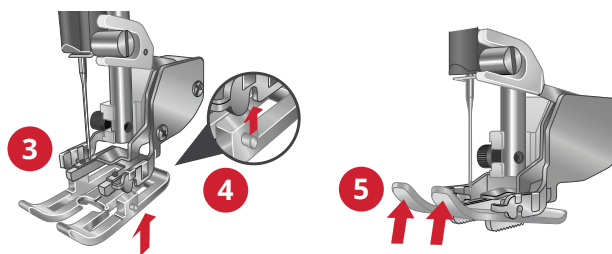
1. Use the screwdriver to remove the presser foot ankle.
2. Place the dual feed on your machine from the back, positioning the fork over the needle clamp screw. Then screw the dual feed onto the presser foot bar with the presser foot ankle screw.



Snap on and Remove the Presser Foot

3. With presser foot bar in the up position, place the presser foot under the dual feed.
4. Push the foot upwards so that it snaps into place.
5. To remove the foot, push the front of the foot upwards until the foot snaps off.

Note: Always keep the dual feed with a foot snapped-on when it is not attached to the machine.

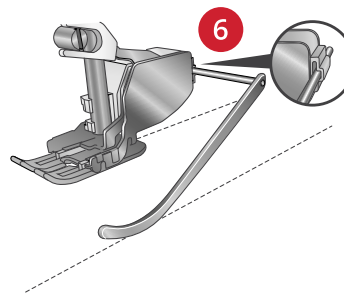


How to Attach the Guide

The two edge/quilting guides included with your machine will help you sew parallel rows of stitching side by side as in channel quilting or tucking. There is one guide for the left side, and one for the right.

6. Insert the guide into the hole in the back of the dual feed. Adjust the space between the foot and the guide by pulling it to the left or to the right.

Note: The edge guides can also be used without the dual feed. Insert one into the hole at the back of the presser foot ankle and tighten the screw.



Changing to Straight Stitch Plate

The Straight Stitch Plate is recommended for embroidery. It may also be used for certain techniques in sewing mode, such as quilt piecing. The smaller hole in the Straight Stitch Plate supports the fabric closer to the needle and helps prevent the fabric from being pulled down into the bobbin area, especially at the beginning and/or end of a seam.

1. Remove the presser foot and slide off the bobbin cover.
2. Make sure that the feed teeth are lowered. Place the screwdriver under the needle plate as shown in the picture and gently turn the screwdriver to pop off the needle plate.

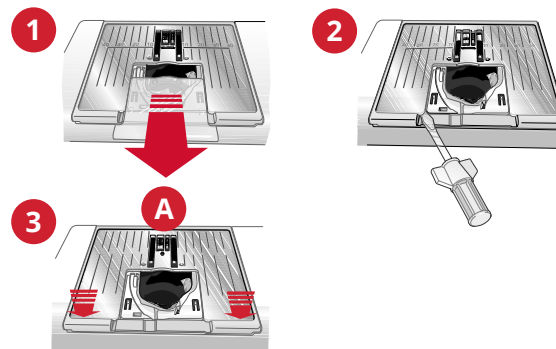
Note: Lower the feed teeth by touching the presser foot up and extra lift button.

Note: When changing the needle plate, clean any lint and threads from the bobbin area.

3. With feed teeth lowered, place the straight stitch plate so that it fits into the notch at the back (A). Press the straight stitch plate down until it clicks into place. Slide on bobbin cover.



To prevent needle breakage or damage to the plate, remove any accessory that is not compatible with the Straight Stitch Plate, such as twin needle.

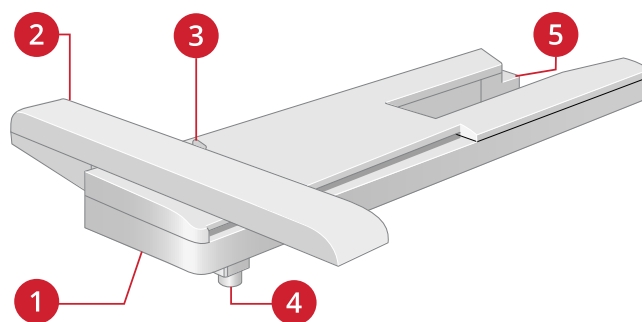


3 Embroidery Preparations

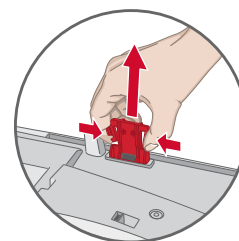
Embroidery Unit

(type BE 17)

1. Embroidery unit release button (underside)
2. Embroidery arm
3. Embroidery hoop attachment
4. Level adjustment feet
5. Embroidery unit plug

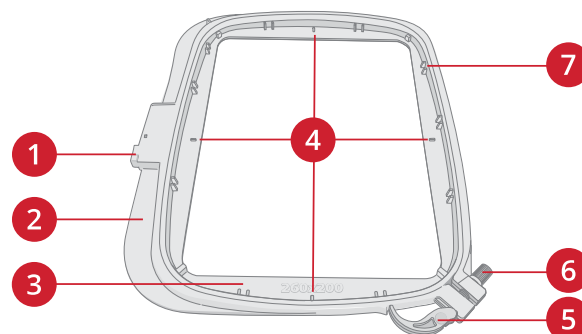


When removing the embroidery unit from the box for the first time, be sure to remove the shipping brace on the underside of the embroidery unit.



Embroidery Hoop Overview

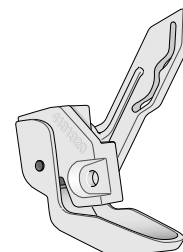
1. Embroidery hoop connector
2. Outer hoop
3. Inner hoop
4. Center marks
5. Quick release
6. Retaining screw
7. Ribs for fitting the clips



Sensor Q-Foot

The Sensor Q-foot is recommended for hoop embroidery.

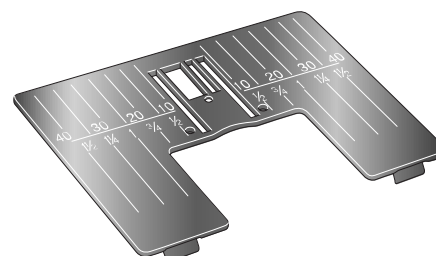
See Attaching the Sensor Q-Foot, page 35.



Straight Stitch Plate

The Straight Stitch Plate is recommended for hoop embroidery.

See Changing to Straight Stitch Plate, page 36.



Designs

Over 620 designs are included in the machine memory. These designs, along with the eight built-in embroidery fonts, are shown in the DESIGNER SAPPHIRE™ 85 sampler book.

DESIGNER SAPPHIRE™ 85 Sampler Book

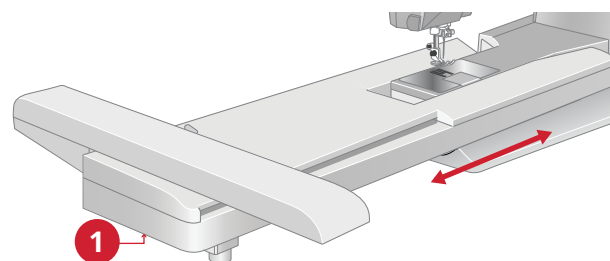
Page through the DESIGNER SAPPHIRE™ 85 sampler book for designs and fonts.

All included designs are pictured and the design number is shown. Information about stitch count (number of stitches in the design) and the design size is also shown, as well as the complete color block list including information about the technique blocks.

Connect the Embroidery Unit

1. Slide the accessory tray off.
2. Slide the embroidery unit onto the free arm of the machine until it plugs firmly into the socket at the back of the machine. If needed, use the level adjusting feet so that the machine and embroidery unit are even. If the machine is turned off, turn it on.
3. If you were already in embroidery mode or when you switch to embroidery mode, a pop-up message tells you to clear the embroidery arm and remove the hoop before calibration. Touch OK. The machine will calibrate and the embroidery arm will move to the ready position.

Note: DO NOT calibrate the machine with the embroidery hoop attached as this can damage the needle, presser foot, hoop and/or the embroidery unit. Be sure to clear all materials from around the machine before calibrating so that the embroidery arm does not bump into anything while calibrating.



Remove the Embroidery Unit

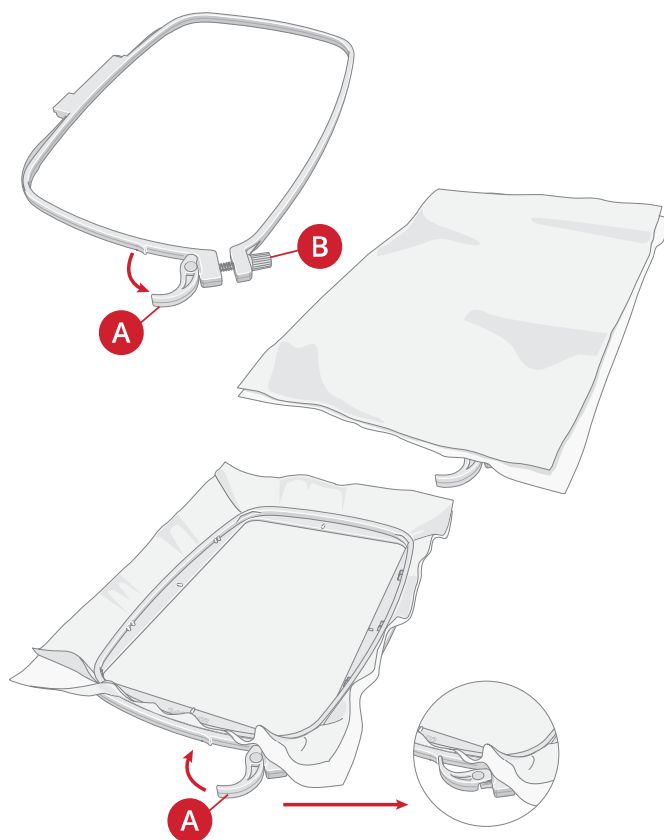
1. To store the embroidery unit in the embroidery case, move the embroidery arm to park position. See park position .
2. Press the button at the left, underneath the embroidery unit (A) and slide the unit to the left to remove it.
3. Store the embroidery unit in the original black styrofoam packing material, placed in the soft carrying bag.

Hoop the Fabric

For the best embroidery results, place a layer of stabilizer beneath the fabric. When hooping stabilizer and fabric make sure that they are smooth and securely hooped.

1. Open the quick release (A) on the outer hoop and loosen the screw (B). Remove the inner hoop. Place the outer hoop on a firm flat surface with the screw on the lower right (B). There is a small arrow in the center of the lower edge of the hoop which will line up with a small arrow on the inner hoop.
2. Place the stabilizer and fabric, with the right sides facing up, on top of the outer hoop. Place the inner hoop on top of the fabric with the small arrow at the bottom edge. If you can see the hoop size in the lower part of the inner hoop, you have attached it correctly.
3. Push the inner hoop firmly into the outer hoop.
4. Close the quick release (A). Adjust the pressure of the outer hoop by turning the retaining screw (B). The fabric should be taut in the hoop for the best results.

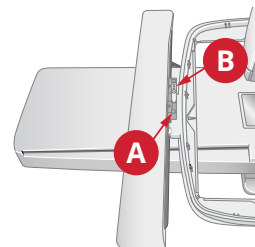
Note: When embroidering additional designs on the same fabric, open the quick release, move the hoop to the new position on the fabric and close the quick release. When changing type of fabric, you might need to adjust the pressure using the retaining screw. Do not force the quick release.



Slide on/off the Hoop

Slide the hoop connector into the hoop attachment (A) from front to back until it clicks into place.

To remove the hoop from the embroidery arm, press the grey button (B) on the hoop attachment and slide the hoop towards you.



4 Maintenance


Cleaning the Machine Exterior

To keep your sewing machine operating well, clean it often. No lubrication (oiling) is needed.

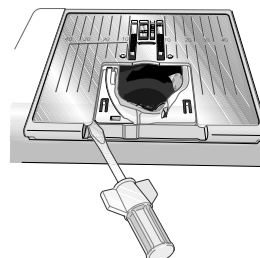
Wipe the exterior surface of your machine with a soft cloth to remove any dust or lint built up.

Wipe the screen with a clean, soft and slightly damp microfiber cloth.

Removing the Needle Plate and Cleaning the Bobbin Area

 Lower the feed teeth by touching the presser foot up and extra lift button. Turn off the machine.


- Remove the presser foot and slide off the bobbin cover.
- Place the screwdriver under the needle plate as shown in the picture and gently turn the screwdriver to pop off the needle plate.
- Clean the feed teeth with the brush found with the accessories.



Cleaning Under the Bobbin Area

Clean the area under the bobbin case after sewing several projects or any time you notice an accumulation of lint in the bobbin case area.

- Remove the bobbin case holder (A) covering the front part of the bobbin case by lifting it up.
- Remove the bobbin case (B) by lifting it up.
- Clean with the brush.

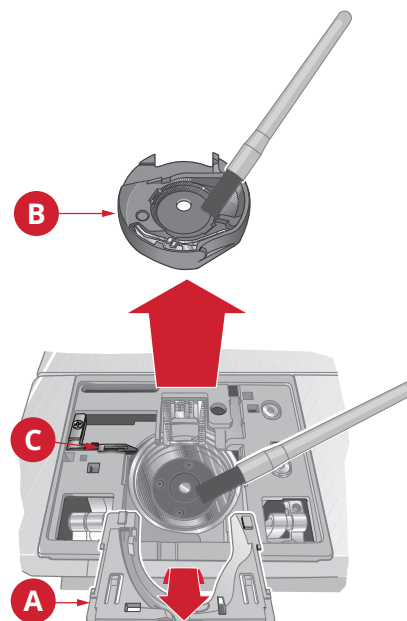
 Use caution when cleaning around the automatic thread cutter knife (C).

- Put the bobbin case and the bobbin case holder back in place.

Note: Do not blow air into the bobbin case area. The dust and lint will be blown into your machine.

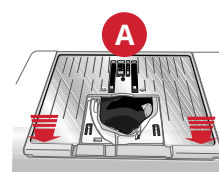
Note: When using optional accessories like cutwork and/or felting needles, it is necessary to clean the bobbin area after each embroidered design/project.

Note: Regularly clean the lint and threads from the bobbin area. Check the area when changing the needle plate.



Replacing the Needle Plate

- With feed teeth lowered, place the needle plate so that it fits into the notch at the back (A).
- Press the needle plate down until it clicks into place.
- Slide on bobbin cover.



Troubleshooting

In this troubleshooting guide you will find solutions to the problems you may have with your machine. For further information please contact your local authorized

HUSQVARNA® VIKING® retailer who will be happy to help you.

General Problems

Bobbin alarm does not work	Clean lint from bobbin area and use only the original HUSQVARNA® VIKING® bobbins approved for this model.
Thread cutter does not cut the thread	Remove needle plate and clean lint from bobbin area. Enable automatic thread cutter in the settings menu.
Fabric does not feed	Make sure the machine is not set for free motion sewing. Make sure the feed teeth are not set to down in the settings menu.
Wrong stitch, irregular or narrow stitch	Deactivate twin needle or stitch width safety in the settings menu.
The needle breaks	Insert needle correctly as described, see Changing the Needle, page 29. Use a needle suitable for selected fabric. See Selecting Correct Thread/Needle Combination, page 31.
The machine will not sew	Check that all plugs are securely inserted into the machine and the wall socket.
Poor sewing/embroidery result	Use only accessories designed for your DESIGNER SAPPHIRE™ 85 machine. Follow the on-screen recommendations.
The sewing and embroidery machine screen and/or function buttons do not respond to touch	The sockets and function buttons on the machine can be sensitive to static electricity. If the screen does not respond to touch, turn the machine OFF and then ON again. If the problem persists, contact your authorized HUSQVARNA® VIKING® retailer.
When sewing in heavy and/or dense fabrics the machine emits a distinct sound different from the sound normally generated when sewing.	The sound is not an indication of malfunction. The machine is equipped with a pulsating needle piercing feature that helps the needle to penetrate heavy and/or dense fabrics. The sound is caused when the presser foot and fabric lift with the needle. Increase the presser foot pressure to prevent the foot from lifting. If the sound does not seem to be related to the pulsating needle piercing feature, contact your authorized HUSQVARNA® VIKING® retailer for service.

The Machine Skips Stitches

Did you insert the needle properly?	Insert needle correctly as described, see Changing the Needle, page 29.
Did you insert a wrong needle?	Use needle system 130/705 H. Use a needle suitable for selected fabric and thread. See Selecting Correct Thread/Needle Combination, page 31.
Is the needle bent or blunt?	Insert a new needle.
Did you thread the machine properly?	Remove the thread completely and rethread the machine, see Horizontal Spool Pin, page 29.

Is the correct presser foot used?	Attach correct presser foot.
Is the needle too small for the thread?	Change the needle.
Is the fabric moving up and down with the needle when free motion sewing or embroidering?	Attach Sensor Q-Foot.

Needle Thread Breaks

Did you insert the needle properly?	Insert needle correctly, see Changing the Needle, page 29.
Did you insert a wrong needle?	Use needle system 130/705 H. Use a needle suitable for selected fabric and thread. See Selecting Correct Thread/Needle Combination, page 31.
Is the needle bent or blunt?	Insert a new needle.
Did you thread the machine properly?	Remove the thread completely and rethread the machine, see Horizontal Spool Pin, page 29.
Is the needle too small for the thread?	Change the needle to the proper size for the thread.
Are you using poor thread with slubs or thread which has become dry?	Change to a new high quality thread purchased from an authorized HUSQVARNA® VIKING® retailer.
Is the best spool pin position used?	Try a different spool pin position (vertical or horizontal).
Is the needle plate hole damaged?	Change the needle plate.
Is the thread tension too high for selected thread?	Lower the thread tension in small increments until problem is solved.

Bobbin Thread Breaks

Is the correct bobbin used?	Use only the original bobbins approved for this model.
Did you insert the bobbin properly?	Check the bobbin thread.
Is the needle plate hole damaged?	Change the needle plate.
Is the bobbin area full of lint?	Clean lint from bobbin area and use only the original bobbins approved for this model.
Is the bobbin wound correctly?	Wind a new bobbin.

The Seam Has Uneven Stitches

Is the thread tension correct?	Check needle thread tension. Remove the thread completely and rethread the machine, see Horizontal Spool Pin, page 29.
Is the thread you are using thick or slubbed?	Change the thread.
Is the bobbin thread evenly wound?	Check bobbin winding.
Is a correct needle used?	Insert a proper needle correctly as described, see Changing the Needle, page 29. Use a needle suitable for selected fabric. See Selecting Correct Thread/Needle Combination, page 31.

The Machine Does Not Feed or Feeds Irregularly

Did you thread the machine properly?	Remove the thread completely and rethread the machine, see Horizontal Spool Pin, page 29.
Has sewing lint collected between the feed teeth?	Remove the needle plate and clean the feed teeth with the brush.
Is the free motion setting on?	Turn off free motion setting in sewing mode.
Are the feed teeth set to down?	Make sure the feed teeth are not set to down in the settings menu.
Is the correct presser foot used?	Attach correct presser foot.

Thread Loops are Forming on the Underside of the Embroidery Design

Has the embroidery built up too much to move freely under the presser foot?	Attach Sensor Q-Foot. If using the R-Foot, increase the embroidery pivot height in settings menu in small increments until the problem is solved.
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The Embroidery Design Is Distorted

Is the fabric hooped properly?	The fabric must be tightly hooped. For larger hoops, use hoop clips.
Is the inner embroidery hoop properly inserted into the outer embroidery hoop?	Hoop the fabric in such a way that the inner hoop exactly matches the outer hoop.
Is the area around the embroidery arm and hoop free?	Clear area around the embroidery unit.
Is the hoop attached properly?	Make sure the hoop connector is inserted all the way into the hoop attachment on the embroidery arm.

The Embroidery Design Has Puckered

Did you stabilize your fabric sufficiently?	Ensure you use the proper stabilizer for your technique or fabric type.
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The Machine Will Not Embroider

Is the embroidery unit attached?	Make sure that the embroidery unit is properly attached into the socket.
Is the wrong hoop attached?	Slide on the correct hoop.

Troubleshooting Connectivity

The Machine Cannot Connect to a WiFi Network

The machine will not connect to a WiFi network	<p>Make sure that WiFi is enabled on your machine. Touch the WiFi button on the top bar or go to WiFi settings.</p> <p>Make sure that the machine detects a signal from your WiFi network. If there is no signal, move the machine closer to the WiFi router.</p> <p>Make sure you have selected your WiFi network.</p>
The machine has no Internet connection	<p>Make sure that your WiFi router has access to the Internet.</p>
The WiFi network is password protected	<p>Make sure that you have selected your WiFi network and entered the correct password. If you do not know the password, contact the administrator of your network.</p>

The Machine Cannot Synchronize with the *mySewnet*[™] Cloud

The machine cannot synchronize files with the <i>mySewnet</i> [™] cloud	<p>Make sure that you have a working WiFi connection.</p> <p>Make sure that you have signed in to your <i>mySewnet</i>[™] account. New <i>mySewnet</i>[™] accounts are registered in the machine or at husqvarnaviking.mysewnet.com</p> <p>Make sure that there is available space on the <i>mySewnet</i>[™] cloud.</p> <p>If the <i>mySewnet</i>[™] cloud is not accessible although you have checked the WiFi connection, the server could temporarily be unavailable. Please try again later.</p>
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Service

Have Your Sewing Machine Serviced Regularly by Your Local Authorized Retailer!

If you have followed this troubleshooting information and still have problems, contact your retailer. It may be helpful to bring the fabric, thread and stabilizer you are using with you. If you have a stitch out that shows the problem, please bring that as well. A sewing sample will often give better information than words and help your technician diagnose the problem.

Non-Original Parts and Accessories

The warranty does not cover any defect or damage caused by use of non-original accessories or parts.

Technical Specification

DESIGNER SAPPHIRE™ 85 machine

Rated voltage	100–120V/200–240V, 50–60Hz
Nominal consumption	<100W
Light	LED lamps
Sewing speed	1050 stitches/minute maximum
Foot control model	FR5
Safety class	I
WiFi module:	
Frequency	2.4GHz band 802.11 b/g/n
Transmitting power	+17 dBm
Receiver sensitivity	-97 dBm
Net weight (kg), machine only	10
Net weight (kg), embroidery unit	3.7
Machine dimensions:	
Length (mm)	485
Width (mm)	240
Height (mm)	300

- The technical specifications and this owner's manual can be changed without prior notice.

You have purchased a modern, updatable sewing and embroidery machine. As we regularly release firmware updates, it is possible that there may be some differences between the machine firmware and the firmware described in the user's guide. Consult your local authorized HUSQVARNA® VIKING® retailer, and be sure to visit our website at www.husqvarnaviking.com for the latest updates of the firmware and the user's guide.

We reserve the right to change the machine equipment and the assortment of accessories without prior notice, or make modifications to the performance or design. Such modifications, however, will always be to the benefit of the user and the product.

INTELLECTUAL PROPERTY

Patents protecting this product are listed on a label positioned underneath the Sewing Machine.

DELUXE, DESIGNER SAPPHIRE, JOYOS ADVISOR, MYSEWNET, VIKING, and KEEPING THE WORLD SEWING & Design are trademarks of KSIN Luxembourg II, S.a. r.l.

HUSQVARNA and the "crowned H-mark" are trademarks of Husqvarna AB and used under license.



Please note that on disposal, this product must be safely recycled in accordance with relevant National legislation relating to electrical/electronic products. Do not dispose of electrical appliances as unsorted municipal waste, use separate collection facilities. Contact your local government for information regarding the collection systems available. When replacing old appliances with new ones, the retailer may be legally obligated to take back your old appliance for disposal free of charge.

If electrical appliances are disposed of in landfills or dumps, hazardous substances can leak into the groundwater and get into the food chain, damaging your health and well-being.

Manufacturer

VSM GROUP AB, **SVP Worldwide**

Drottninggatan 2, SE-56184, Huskvarna, SWEDEN

