

SINGER[®]
AT HOME WORLDWIDE

XL-6000

INSTRUCTION MANUAL



CONGRATULATIONS

...on the purchase of this new Singer® Computer Sewing Machine. Your new sewing machine is the most innovative machine ever manufactured. Actually, it is two machines in one... a full featured Standard Sewing Machine and an exclusive featured Embroidery Sewing Machine. For years sewers have dreamed of owning a machine that would thread itself, automatically change to a new color thread, never run out of bobbin thread and calculate its own tension requirements. Your new sewing machine has all these features and also employs an exclusive operating system of self-evident pictograms ("pictos").

However, as simple as the machine is to operate, to obtain the most enjoyment and take full advantage of all the features, it is strongly recommended you familiarize yourself with the machine. Following the instruction manual in sequential order is the best way to build your skills and understanding of all the machines parts and capabilities.

INSTRUCTION BOOK SINGER® XL-6000

The manufacturer reserves the right to change the appearance, design, or accessories of this sewing machine as considered necessary without any notification or obligation.

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“IMPORTANT SAFETY INSTRUCTIONS”

“When using an electrical appliance, basic safety precautions should always be followed, including the following:”
“Read all instructions before using this sewing machine.”

“DANGER_____To reduce the risk of electric shock:”

1. “An appliance should never be left unattended when plugged in. Always unplug this appliance from the electric outlet immediately after using and before cleaning.”
2. “Always unplug before relamping. Replace bulb with same type rated 3 Watts.”

“WARNING_____To reduce the risk of burns, fire, electric shock, or injury to persons:”

1. “Do not allow to be used as a toy. Close attention is necessary when this appliance is used by or near children.”
2. “Use this appliance only for its intended use as described in this manual. Use only attachments recommended by the manufacturer as contained in this manual.”
3. “Never operate this appliance 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 appliance to the nearest authorized dealer or service center for examination, repair, electrical or mechanical adjustment.”
4. “Never operate the appliance with any air openings blocked. Keep ventilation openings of the sewing machine and foot controller free from the accumulation of lint, dust, and loose cloth.”
5. “Keep fingers away from all moving parts. Special care is required around the sewing machine needle.”
6. “Always use the proper needle plate. The wrong plate can cause the needle to break.”
7. “Do not use bent needles.”
8. “Do not pull or push fabric while stitching. It may deflect the needle causing it to break.”
9. “Switch the sewing machine off (“0”) when making any adjustments in the needle area, such as threading needle, changing needle, threading bobbin, or changing presser foot, and the like.”
10. “Always unplug sewing machine from the electrical outlet when removing covers, lubricating, or when making any other user servicing adjustments mentioned in the instruction manual.”
“Never drop or insert any object into any opening.”
“Do not use outdoors.”
“Do not operate where aerosol (spray) products are being used or where oxygen is being administered.”
“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.”

“SAVE THESE INSTRUCTIONS”

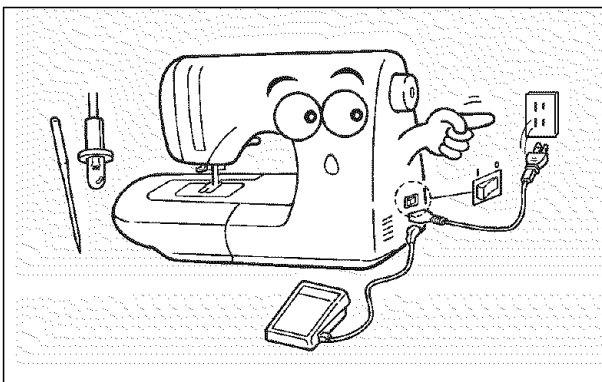
“This sewing machine is intended for household use only.”

Please use following foot control:

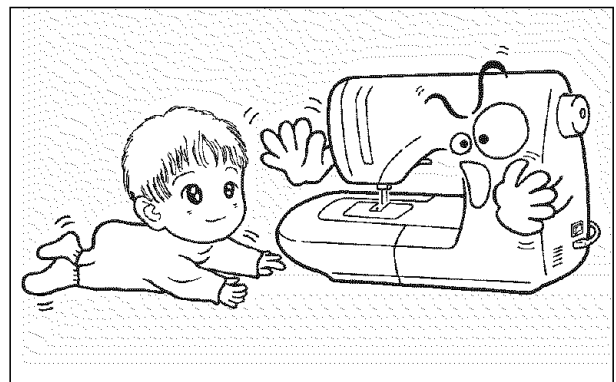
| Sewing machine model number | Used with foot controller number |
|-----------------------------|----------------------------------|
| XL-6000 | YC-425 (UL, CSA) |

“This appliance 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.”

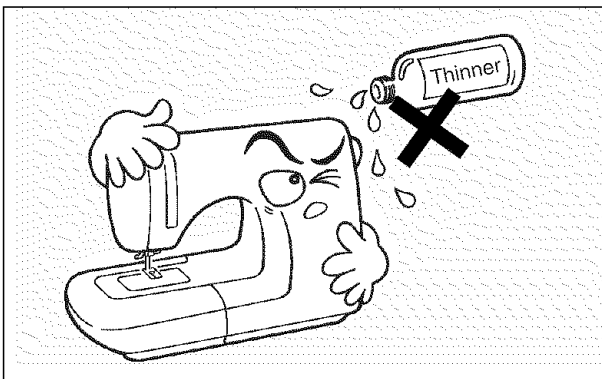
Be sure to turn power switch OFF before replacing sewing machine needle, or lubricating machine.



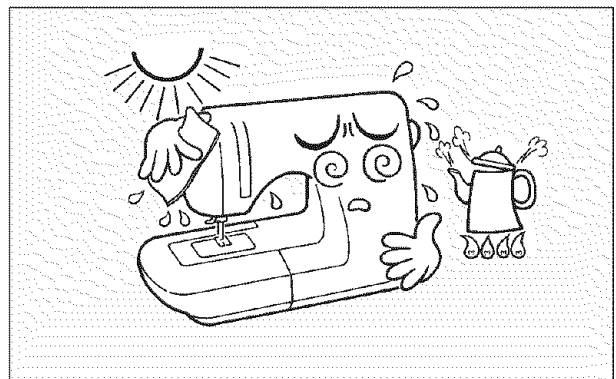
When not in use, be sure to turn power switch OFF and unplug machine.



Do not use thinner or other similar solvents to clean machine.



Do not expose machine to direct sunlight or humid atmosphere.

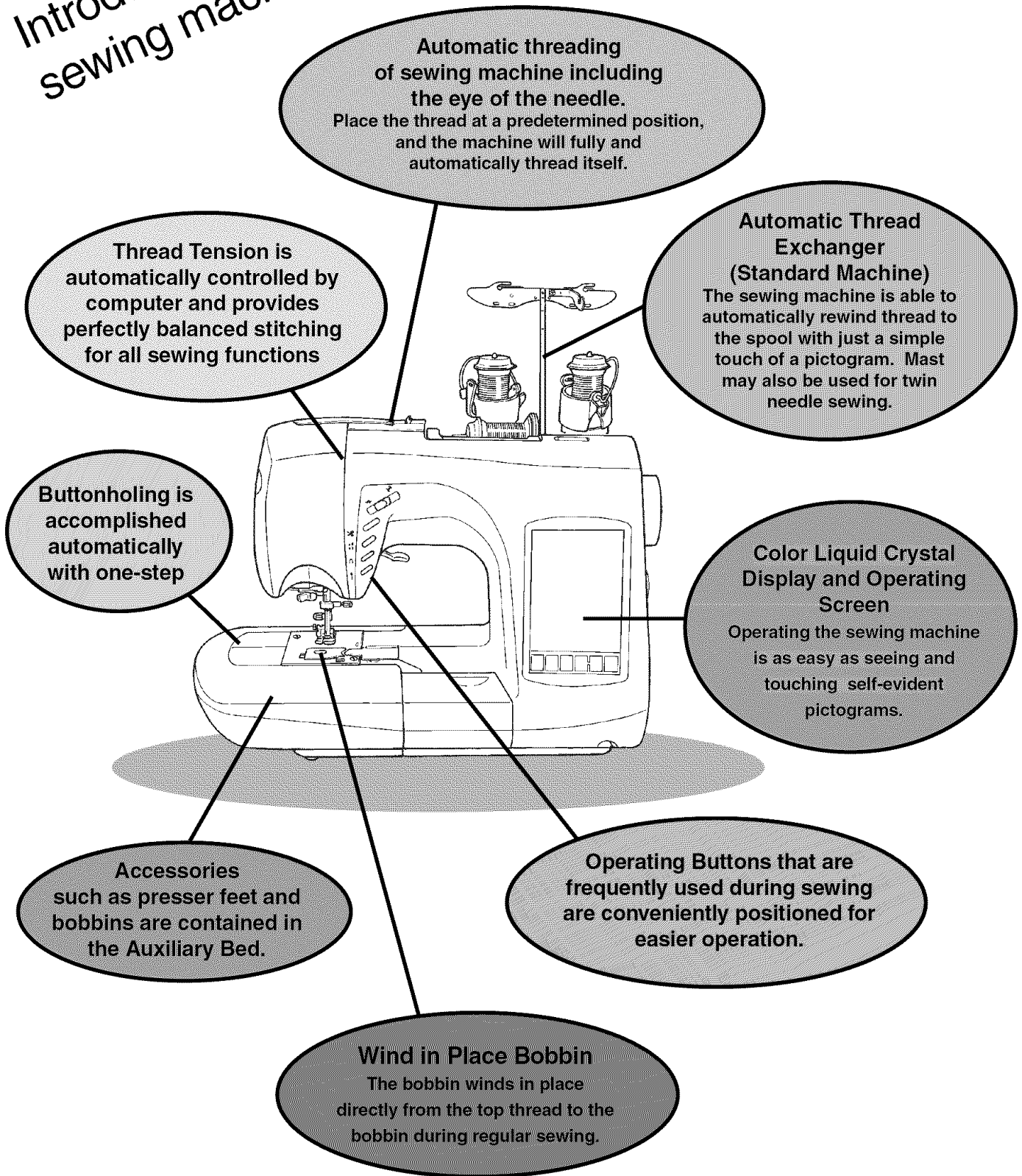


- * While operating sewing machine close face plate cover.
- * Do not use embroidery unit carriage as handle.
- * Do not carry sewing machine while embroidery unit is attached.

This sewing machine uses a micro computer and precision electronic circuits consisting of semiconductor components, so please observe the following precautions:

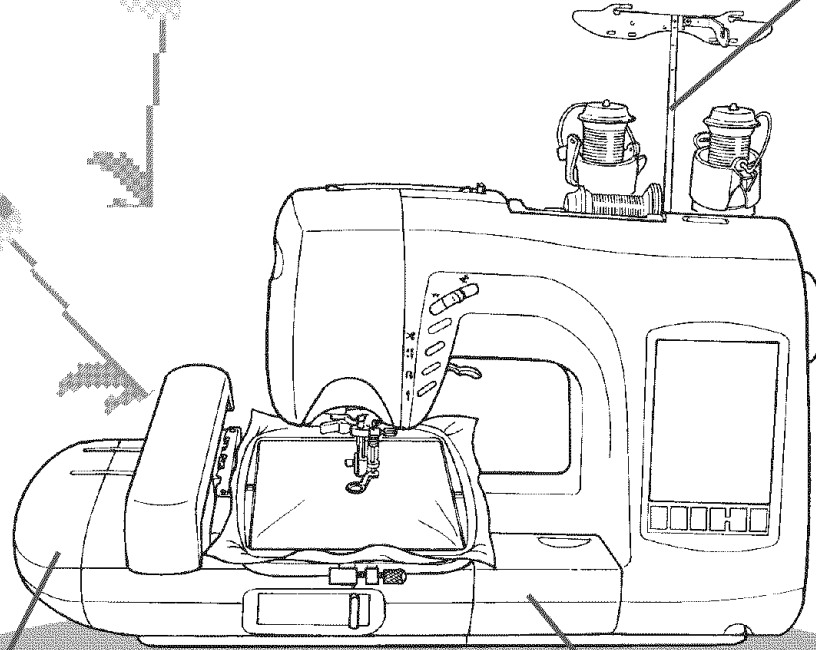
- * Keep room temperature at 40 F to 100 F. If temperature of room where machine is too low, machine may present problems such as failure to reach its normal sewing speed.

Introduction to sewing machine !



THREAD EXCHANGER (Embroidery)

When set to automatic, the Thread Exchanger automatically rewinds thread upon completion of each embroidery color step. The next staged color thread is then automatically threaded and the sewing machine automatically starts sewing again.



Sew extra large embroidery designs up to 250mm x 450mm (nominal 10" x 18") with machine converted to Embroidery Machine
Enjoy professional quality embroidery with a large selection of built-in patterns and optional Embroidery Sew-Ware Cards.

Endless Bobbin
When the machine runs out of bobbin thread it stops, automatically refills the bobbin and resumes embroidering the design.

This eliminates the need to stop the machine, remove the hoop and manually replace the bobbin.

Embroidery Machine is provided with editing function that combines or joins patterns.

*** Embroidery Machine is able to sew large area embroidery patterns.**

Embroidery machine can sew an embroidery pattern as large as 140mm x 240 mm [approximately 6" x 10"]. Patterns may be sewn with built-in designs or characters, Optional Sew-Ware Cards or Designs from Optional Professional Sew-Ware Software.

*** Combination Embroidery provides the ability to combine patterns and letters in a single hoop.**


*** Multiple Hoop Embroidery provides the capability of neatly and precisely joining parts of a combined pattern or letter string pattern that is larger than a single embroidery hoop and have been divided into parts.**


Number of letters that can be sewn at a time is 120 and the number of designs that can be saved is 32 (20 for main sewing machine).

*** Time required for sewing an embroidery pattern and thread colors of pattern is shown on LCD screen.**

LCD screen gives time required for sewing an embroidery pattern and time remaining, during sewing, until completion of sewing. In addition, the screen shows thread color when changing color of embroidery pattern segments.

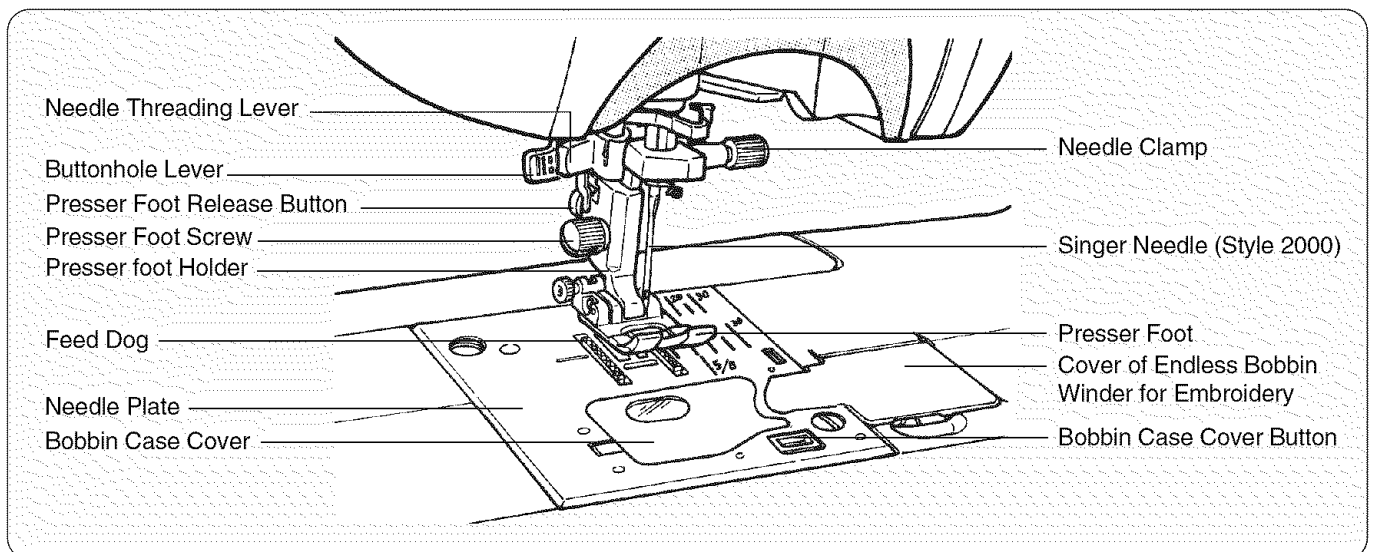
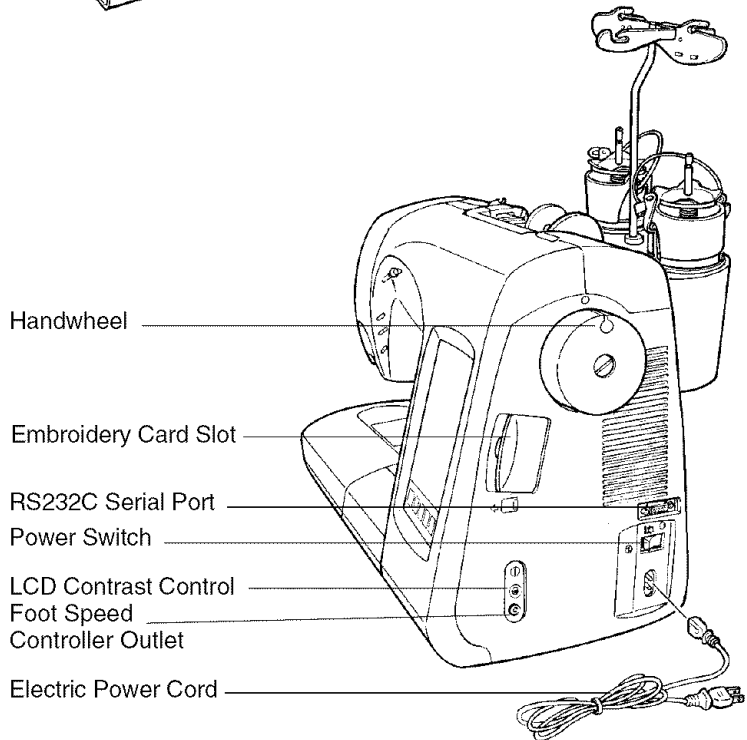
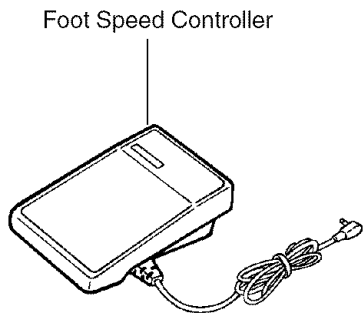
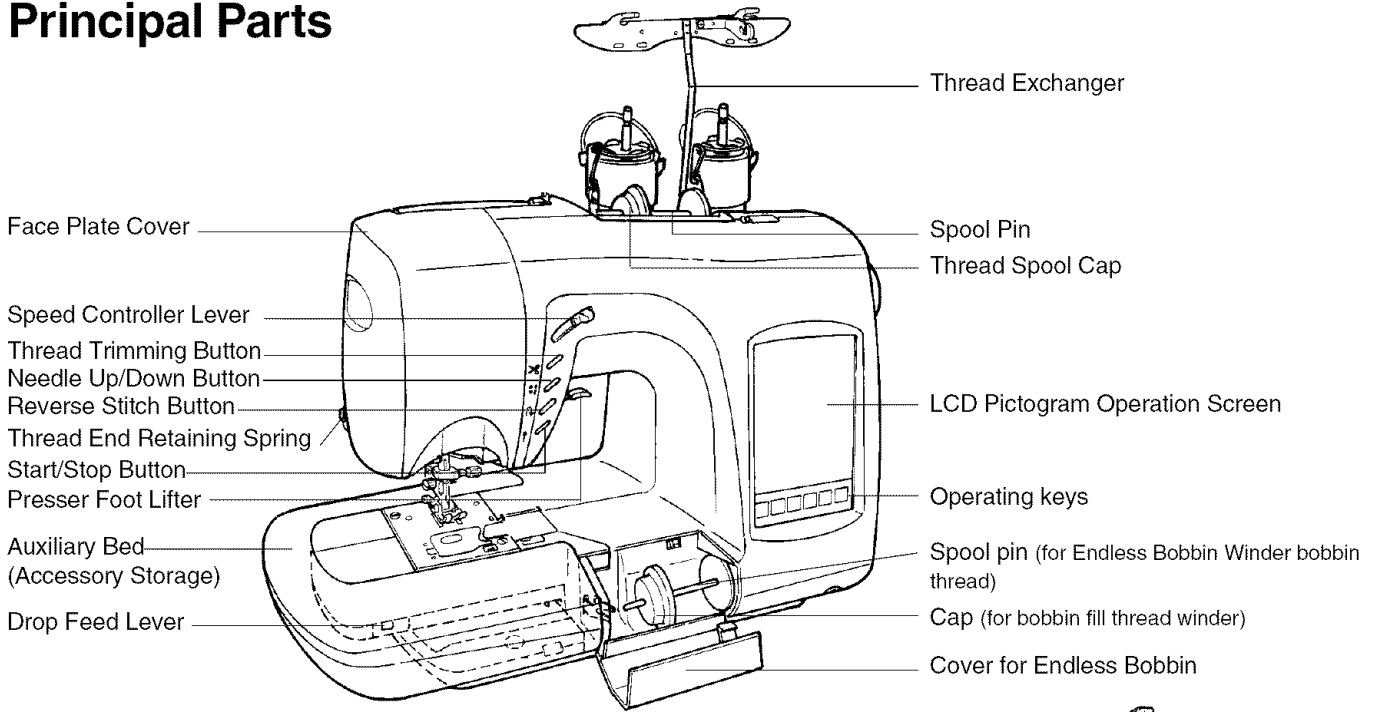
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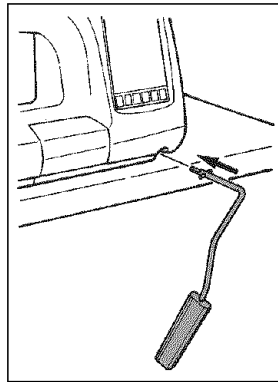
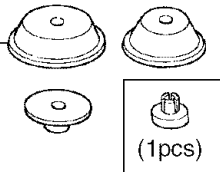
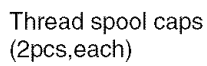
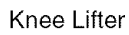
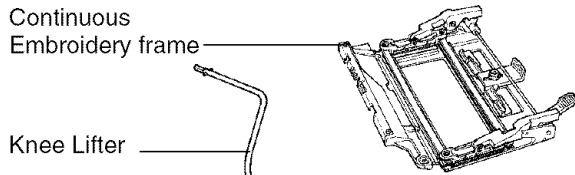
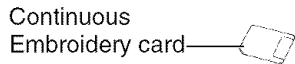
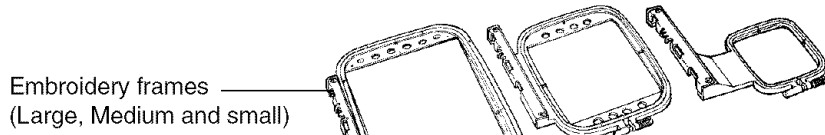
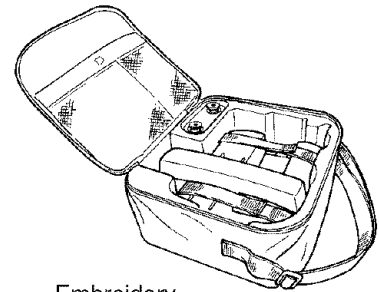
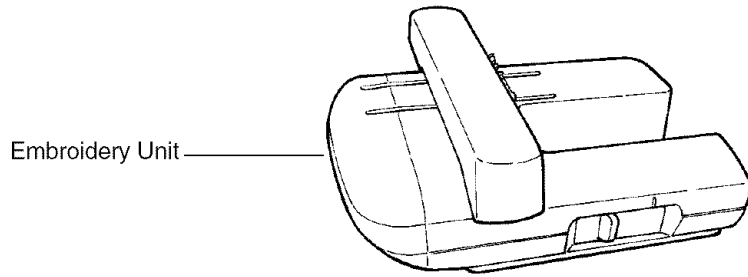
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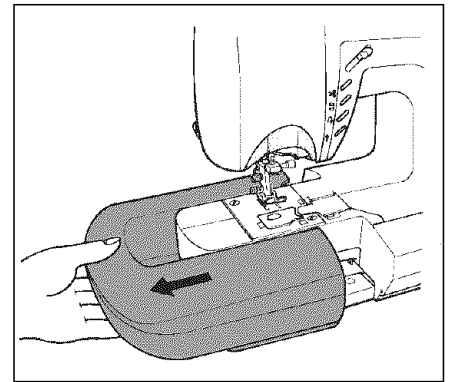


Principal Parts





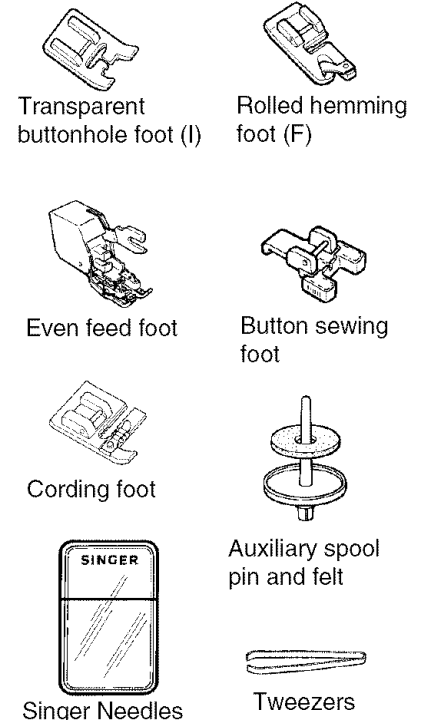
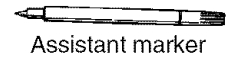
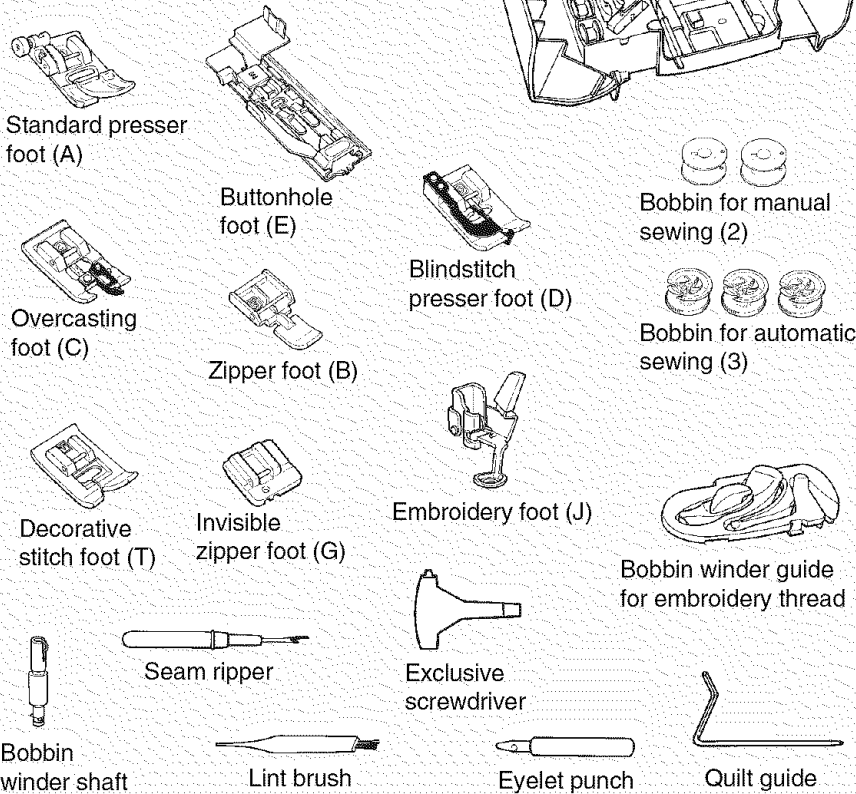
Converting machine to free-arm



Pull Auxiliary Bed to left.

Accessories

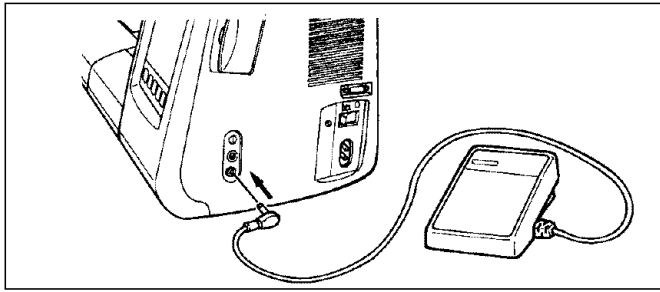
* Contained in auxiliary bed



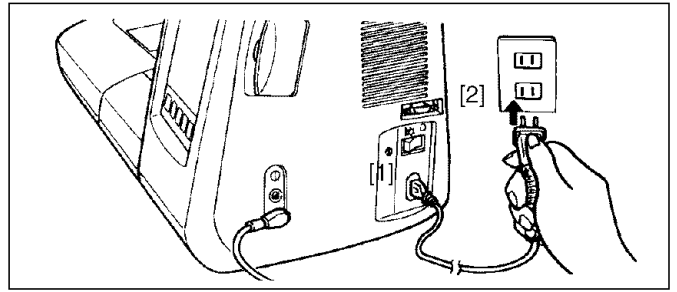
* Standard foot (A) has been factory-attached at the time of delivery.

Connecting machine / Running machine / Operation switches

Connecting Sewing Machine



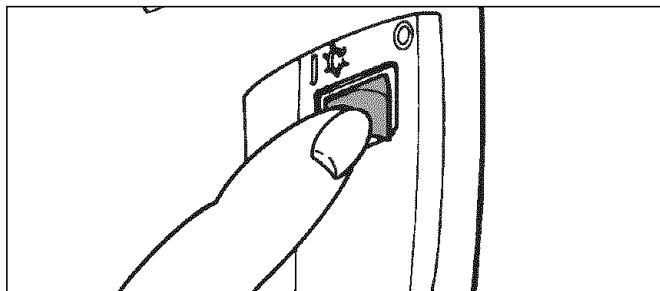
Push foot speed controller plug into lower receptacle at right end of machine.



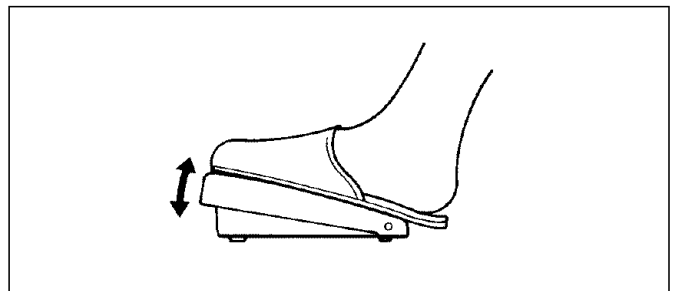
Push power cord plug [1] into receptacle at right end of machine . Plug [2] into electric outlet.

NOTE: If LCD window is too bright or dark to see the stitch patterns, adjust LCD brightness control (see page 10).

Running Sewing Machine



* When "I" side of power switch is pressed machine will be turned on.
* When "O" side of power switch is pressed machine will be turned off.



To run machine press foot speed controller. The harder you press, the faster machine will sew.
To stop machine, remove foot from controller.

Operation Buttons

Thread Trimming Button

When button is pressed, thread trimmer will automatically trim both needle thread and bobbin thread. Then, machine will stop with its needle up.

* After automatic thread trimming, machine is able to immediately sew even if no bobbin thread appears above needle plate.

Start/Stop Button

Note: may be used as an alternative to the Foot Speed controller. When the button is pressed, machine will start running. Another press on the button will cause machine to stop with its needle down.

The Button changes its color according to sewing machine preparation status.

Green: Sewing machine is ready to start or is sewing.

Red: Sewing machine is not ready to start.

Orange: Sewing machine is winding a bobbin.

Speed Lever

Sewing machine speed can be adjusted to limit top speed even during sewing.

Needle Up/Down Button

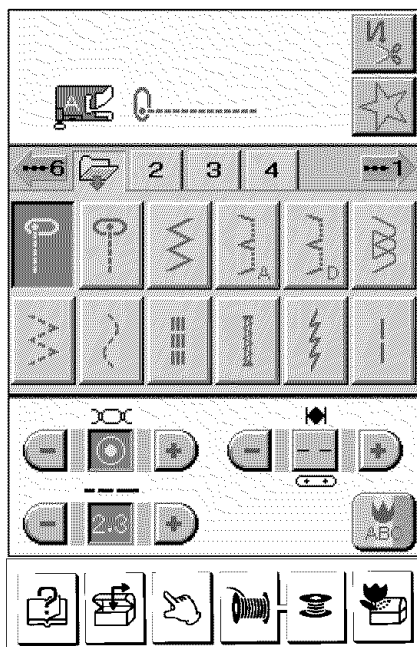
Presser foot lifter

Reverse Stitch Button

Sewing machine sews in reverse (tacking) at a low speed as long as Reverse Stitch Button is held pressed.

Functions of operation keys / LCD screen adjustment

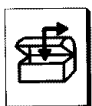
Operation Keys



Patterns shown on LCD screen can be easily selected and sewn.



When this key is pressed, "Stitching procedure" is shown on LCD screen.



Used to save and recall patterns and letter strings.



Used to change thread tension, stitch length, needle position and zigzag width.



Used to automatically thread sewing machine.

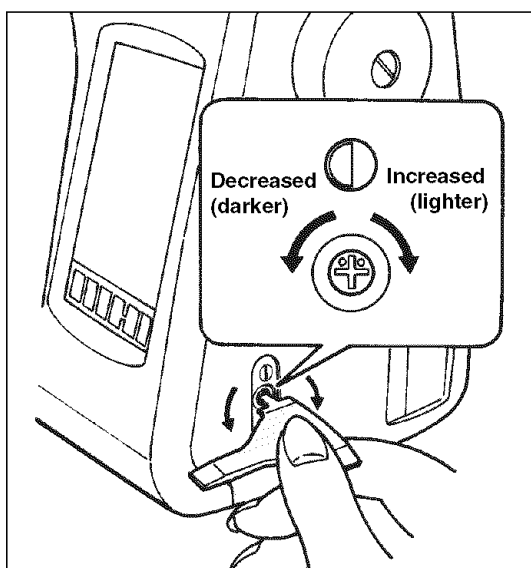


Used to automatically wind a bobbin.



Used to pause or take a break during embroidery sewing. The machine may be turned off and the current status will be saved to be used when returning to the machine and turning on the power.

Adjustment of contrast of LCD screen



Adjust both brightness and contrast of screen through adjusting hole while observing screen.

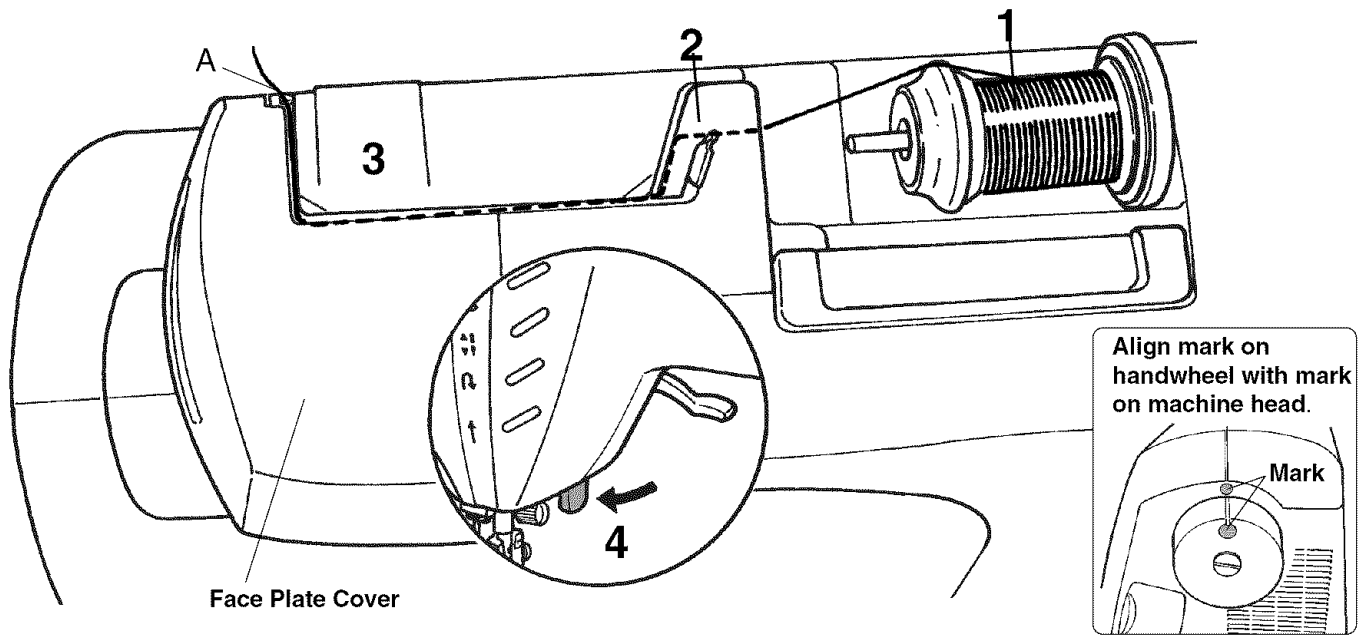
1. Fit thinnest part of screwdriver supplied as an accessory to cross recess in end face of adjusting hole.

**2. To increase brightness (make lighter), turn screwdriver clockwise.
To decrease brightness (make darker), turn it counterclockwise.**

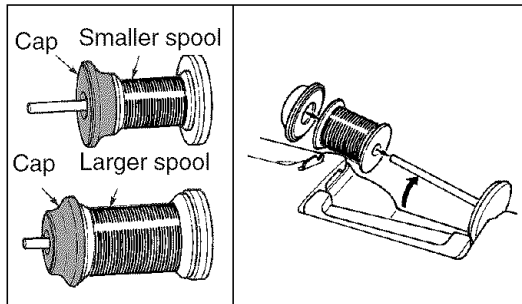
Automatic Threading of Standard Sewing Machine

* Check to be sure that Face Plate Cover is closed.

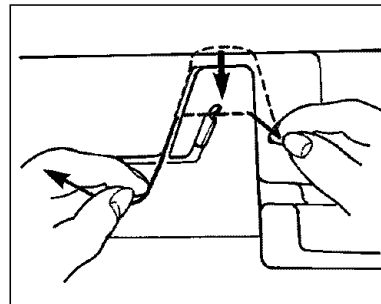
* Do not open Face Pate Cover while machine is engaged in threading.



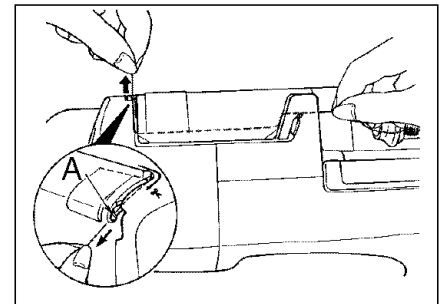
1 Install Thread spools.



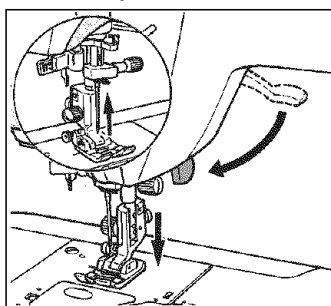
2 Use both hands to pull thread into primary thread guide.



3 Holding thread with your right hand, thread machine head along groove with your left hand. Pull it in direction of arrow and cut it with thread cutter blade "A".

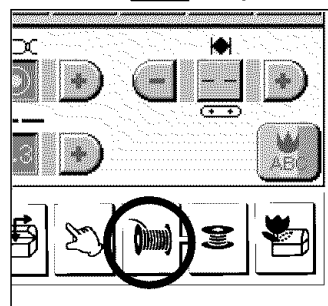


4 Lower presser foot .

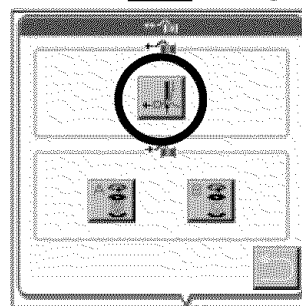


* Align mark on handwheel with mark on sewing machine.

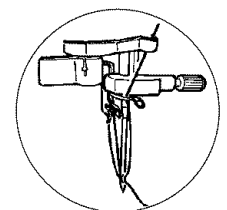
5 Press key.



6 Press Pictogram.



Now, machine starts automatic threading from spool through needle eye.



* If thread is left caught on hook, remove thread from hook before starting sewing.

* For automatic threading, use a needle of size 11 to 16 (80 to 100).

With a needle other than aforementioned one, manually thread machine head.

* When a special-purpose thread (such as invisible thread) is used, machine may fail to perform automatic threading. In such a case, manually thread machine head.

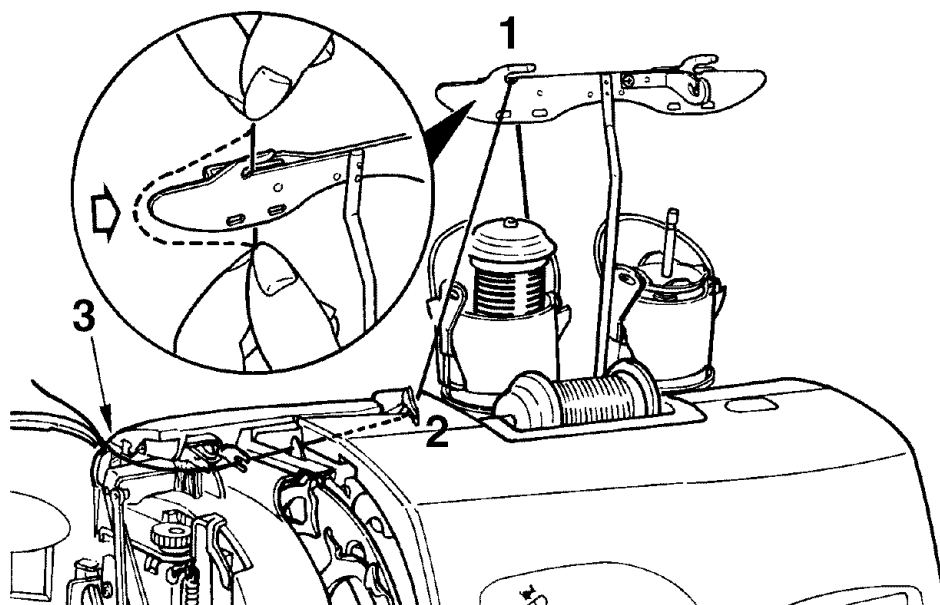
(Refer to pages 121, 122 for how to thread sewing machine manually.)

Thread Exchanger (Standard Machine)

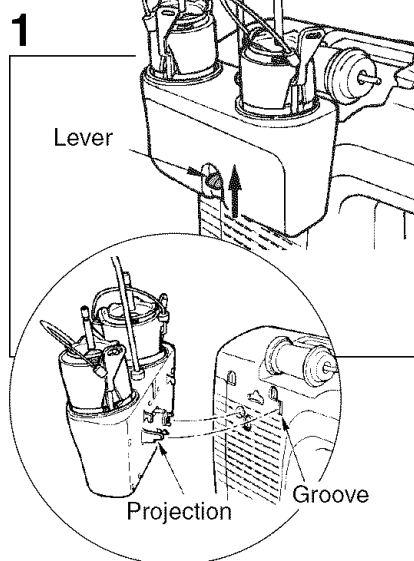
Press rewind switch to automatically rewind thread.

* When sewing embroidery, please see page 63,64.

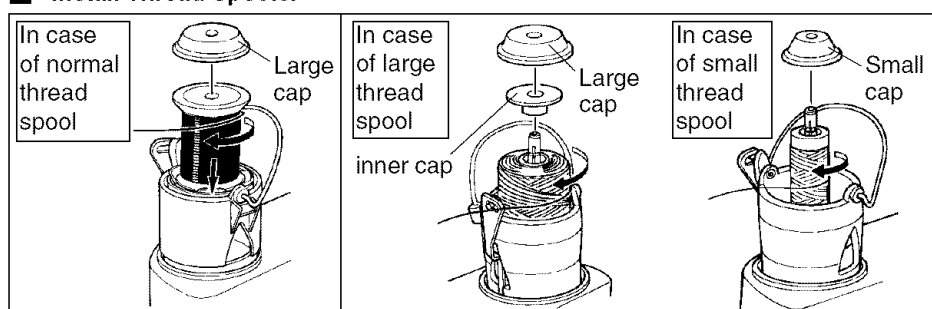
* Do not touch needle thread rewind device during rotation.
 * When the Thread Exchanger stops during re-winding, turn the power to the machine off, confirm the setting of the thread and then turn the power back on.



Install Thread Exchanger.



2 Install Thread Spools.

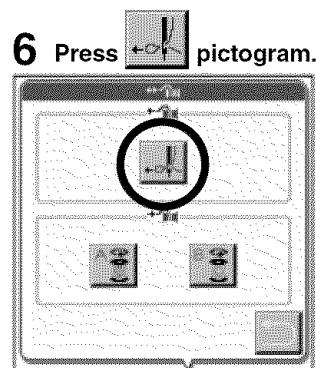
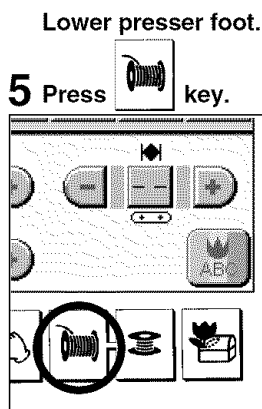
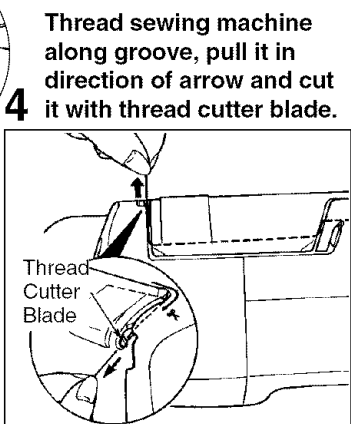
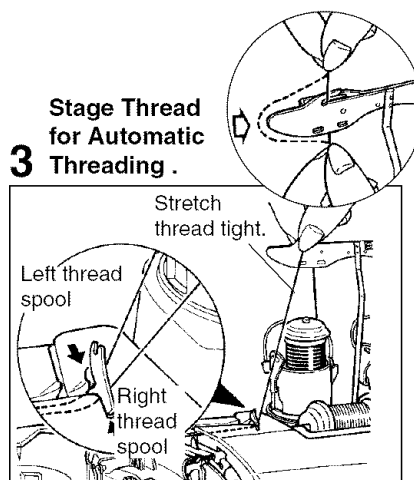


In case of normal thread spool
 Place thread so thread wraps around spool in a clockwise direction and put large cap onto thread spool.

In case of large thread spool
 Place thread so thread wraps around spool in a clockwise direction and put large cap onto thread spool after installing inner cap.

In case of small thread spool
 Place thread so thread wraps around spool in a clockwise direction and put small cap onto thread spool.

*Occasionally when using small spools of thread, the last 10 ~ 15% of thread will not reel off smoothly. When this occurs, use the Auxiliary Spool Pin. Mount the Spool Pin on the Accessory Bobbin Winder Shaft and install on machine.



Holding thread with fingers, pull thread so as to stretch thread tight.

Press picto to rewind thread to left thread spool.

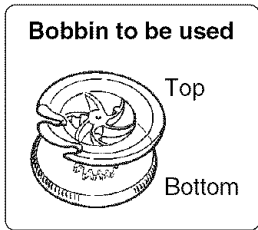
Press picto to rewind thread to right thread spool.

* Press rewind picto after confirming that thread is cut.

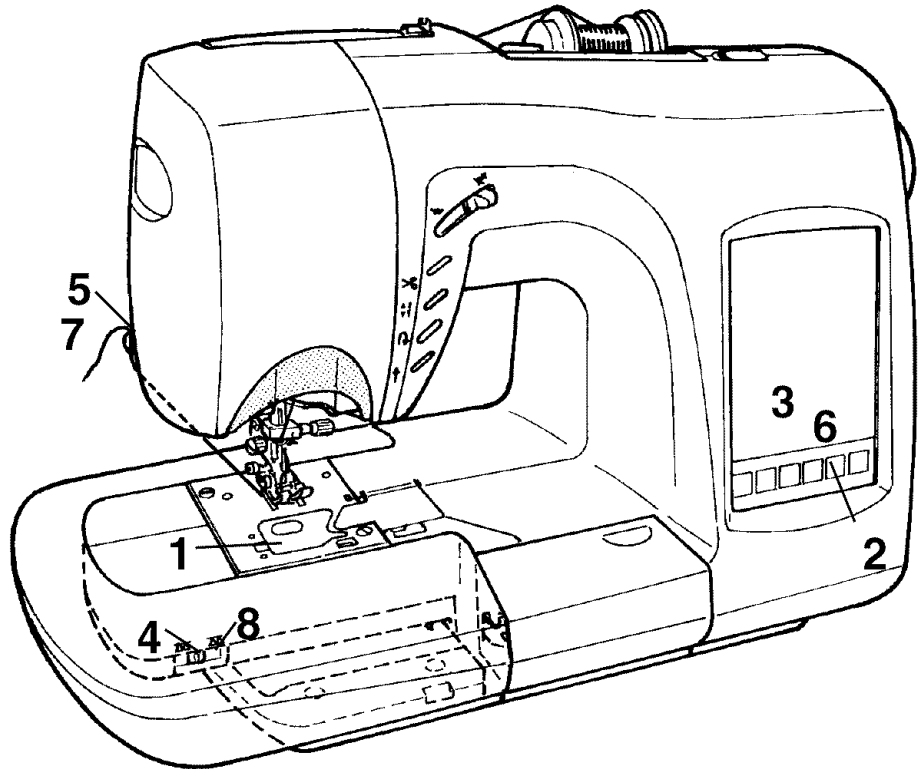
Automatic Wind-In-Place bobbin winding

■ Automatic bobbin winding using needle thread (Standard Sewing Machine)

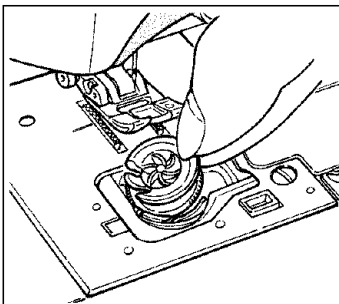
Be sure to turn off the power switch before installing a bobbin.



- * Be sure to use special bobbin illustrated above. Standard bobbins cannot perform Wind-In-Place bobbin winding.
- * Applicable thread sizes are #30 to #100. Use standard presser foot (A).

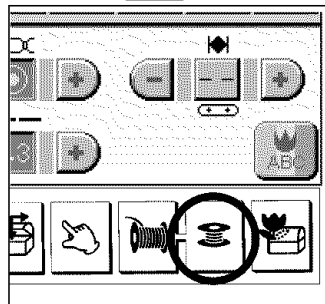


1 Install an empty bobbin and close bobbin case cover.

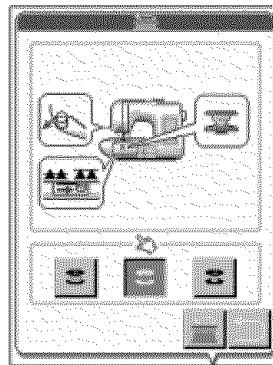


After threading machine,

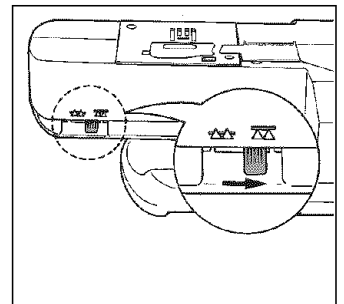
2 press  key.



3 Select amount of thread to be wound onto the bobbin.

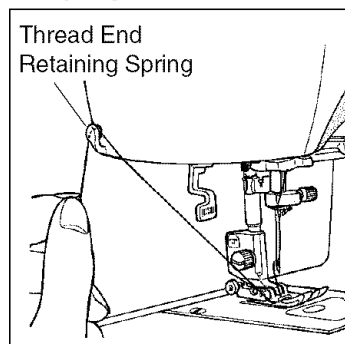


4 Slide drop feed lever to right side.

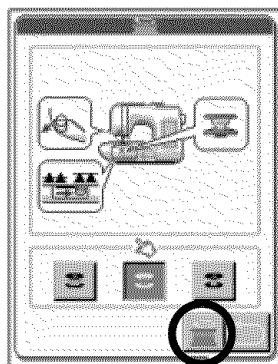


*When thread remains on bobbin, bobbin winder cannot be operated.

5 Tensing thread, pass it under presser foot. Lower presser foot. Pull thread into thread end retaining spring.

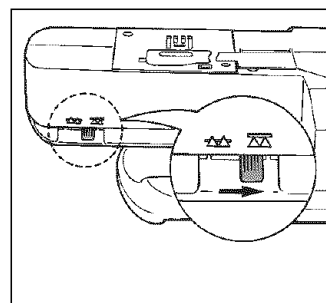


6 Press  pictogram shown on LCD screen.



7 Upon completion of bobbin winding, thread is automatically cut. Then, remove remaining thread from Thread End Retaining Spring.

8 Return drop feed lever to left side.



* If you want to temporarily stop winding bobbin before completion, press start/stop button.

- * If sewing machine has failed to correctly wind bobbin, try again from step 1.
- * With a special-purpose thread, machine may fail to wind bobbin correctly. In such a case, wind bobbin manually. (Refer to pages 119, 120 for how to wind bobbin manually.)
- * If needle thread runs out during bobbin winding, check bobbin.

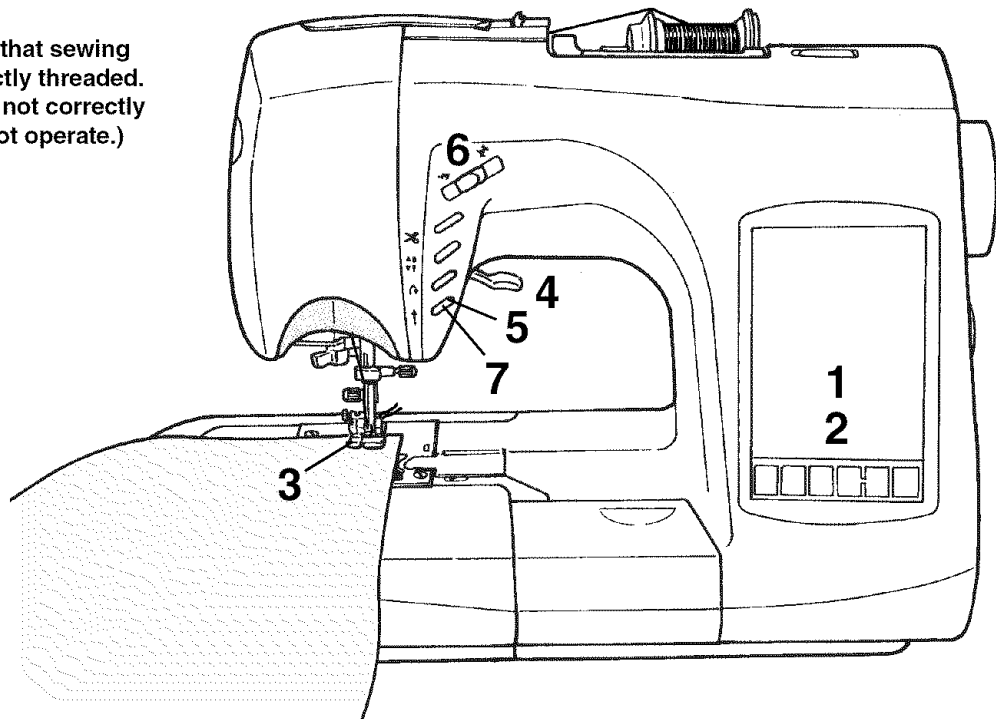
WHAT DOES THAT HELPFUL PICTOGRAM MEAN?



- *The Wind-in-Place Bobbin System shares the winding mechanism with the Embroidery Endless Bobbin. If you attempt to use the Standard Sewing Machine Wind-in-Place Feature when the Endless Bobbin Feature is threaded you will receive a Helpful Pictogram Message instructing you to remove the bottom thread spool.
- *When removing the Bottom Thread Spool open the Cover for the Endless Bobbin and cut the thread at the spool.
- *Remove the Spool of Thread.
- *Then open the Cover of Endless Bobbin Winder and, with your provided tweezers, grasp the short thread tail that protrudes from the spring closest to the screw that holds the Needle Plate in Place.
- *Carefully pull the thread out towards the rear of the sewing machine. Do not pull the thread from the spool end and do not jerk the thread out.
- *Finally, make sure that the Winding Mechanism is clear of any thread debris, paying particular attention to thread scraps that might be caught under the springs.

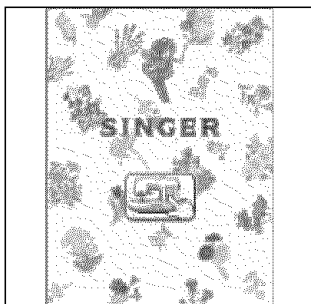
Trial Sewing!

* Check to be sure that sewing machine is correctly threaded. (If the machine is not correctly threaded, it will not operate.)

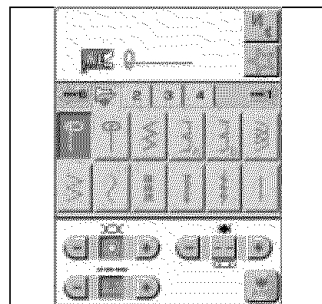


Pull both the needle thread and bobbin thread through and under the presser foot and to the back of the machine. Place fabric under foot and lower Presser Foot.

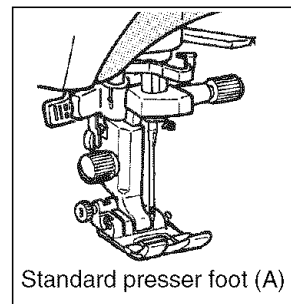
1 Turn on power to machine. Touch LCD Welcome screen.



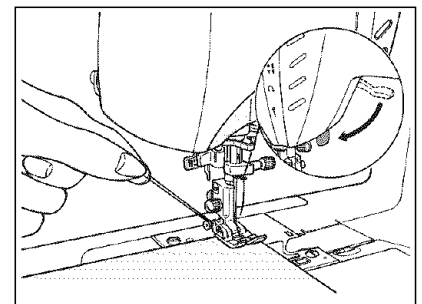
2 The first Utility Pattern screen will appear.



3 Check presser foot is installed correctly.

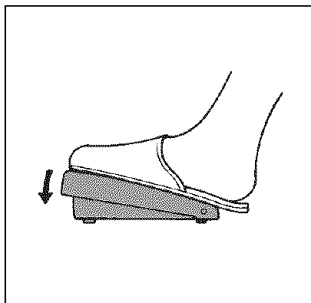


4 Pull both the needle thread and bobbin thread through and under the presser foot and to the back of the machine. Place fabric under foot and lower Presser Foot.

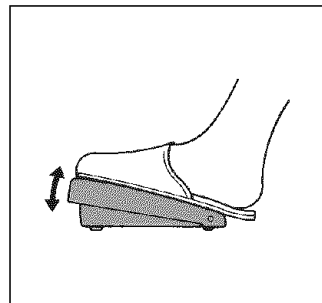


Straight stitching with left needle position will be automatically selected.

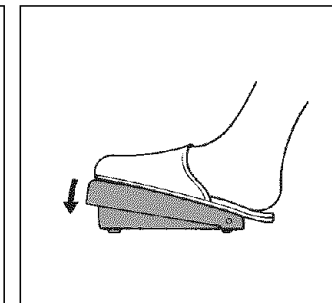
5 Begin sewing.



6 Adjust sewing speed.



7 Stop sewing.

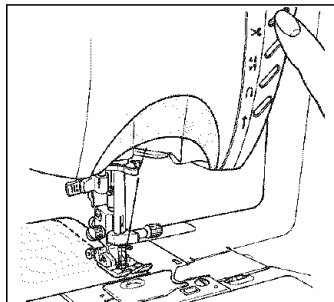


For two hand sewing, use Knee Lifter to raise and lower the Presser Foot.

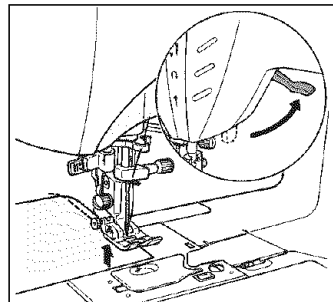
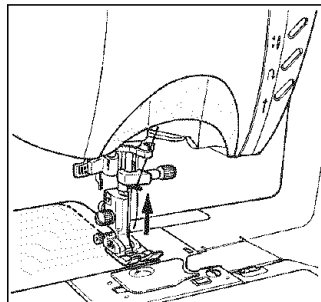
Important: make sure you stop sewing before pressing lifter with your knee.

Automatic thread trimming after completion of sewing:

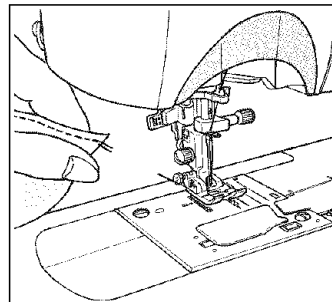
1 Press Thread Trimming Button. *



2 Needle moves until its upper position is reached. **3** Raise presser foot lifter.



4 Both needle thread and bobbin thread are trimmed. Now, you can take out your finished fabric.



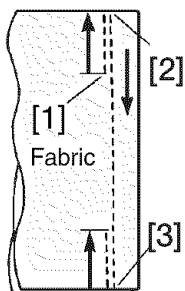
* Cut thick thread or special-purpose thread with a pair of scissors.

After automatic thread trimming, it is not necessary to bring the bobbin thread up to the top.

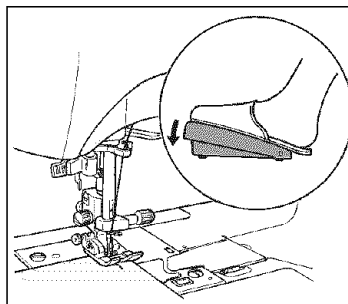
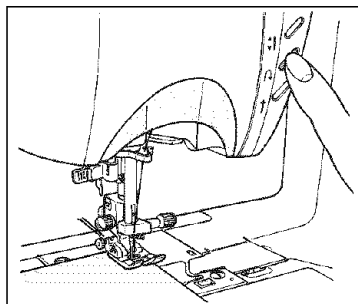


Reverse stitching (back tacking)

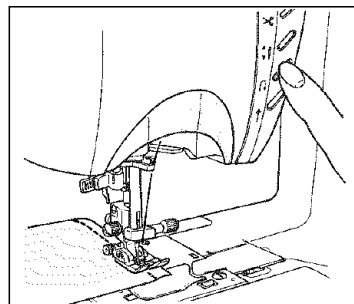
Seams and stitches will not pull apart if reverse stitches are sewn at the start and end of the sewing.



1 Press Reverse Stitch Button. **2** Begin sewing.




3 Press Reverse Stitch Button.



- * Sewing machine will continue reverse stitching as long as reverse stitch button is pressed.
- * Sewing machine sews reverse stitching at a low speed.
- * In the case of pattern sewing such as zigzag stitching, machine will perform back tacking.

Automatic back tacking



In the case where machine is operated after  pictogram has been pressed, machine will sew reverse stitching (back tacking) of three stitches, then start normal stitching. When seam end is reached, press reverse stitch button. Then, machine will sew reverse stitching (back tacking) of three stitches, automatically cut the thread and stop. (See page 29.)

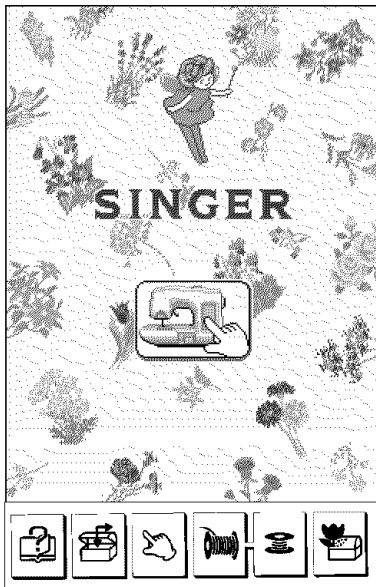
If you have not already tried playing with the Pictogram Pattern Screens..... this would be a great time to take a quick peek at the vast assortment of Stitch Patterns. Just see and touch the pictograms to change groupings and select Stitch Patterns. Please note all the stitch patterns are grouped by general function and are color coded for easy identification:

- * Utility Pattern are grouped on 4 screens and are color coded green.
- * Continuous Functional and Decorative Patterns are grouped on 10 screens and are color coded rose.
- * Large (X-Y Feed) Decorative Patterns are grouped on 6 screens and are color coded orange.
- * Small Decorative Patterns are grouped on 4 screens and are color coded purple.
- * All Alphabet and Numeric Screens are grouped by fonts on 25 screens and are color coded blue.

How to select Utility Patterns (color coded green)

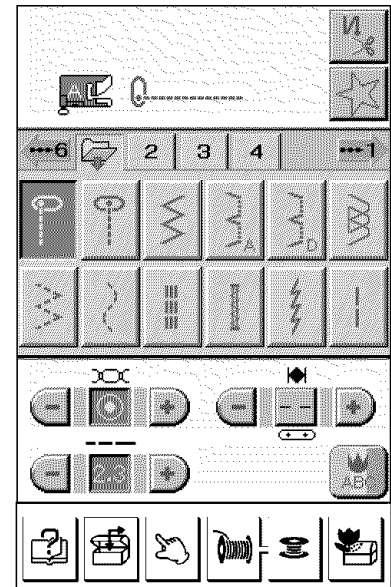
- * Utility patterns are provided on four different screens.
- * A light touch on welcome screen will automatically select straight stitching with left stitch base line. This is the stitch pattern that is usually used for straight stitch sewing.
- * To select another pattern, lightly touch pictogram corresponding to pattern.

Example:  will be shown in reverse color as , and selected pattern and presser foot to be used (pictogram) will appear on LCD screen (above pattern group).



Lightly (*) touch screen.

First screen

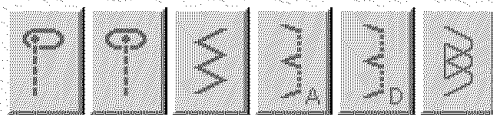


2

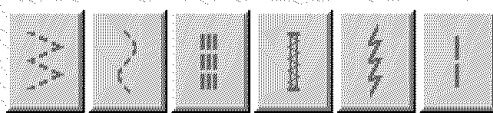
(*) Note: A light touch or press on the desired pictogram (picto) is all that is necessary when selecting a desired stitch or function.

* To change thread tension, needle position/zigzag width or stitch length, refer to pages 20, 21, 22.

Major applications of utility patterns

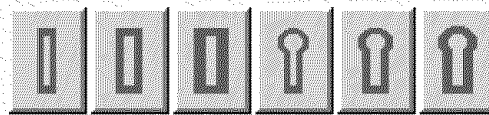


Left position straight stitch
Center position straight stitch
Zigzag stitch
Overcasting
Heirloom and Couching
Blindstitching
Overcasting



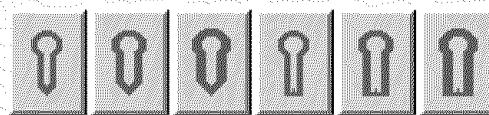
Multi-stitch zigzag & Overcasting
Serpentine stitch
Reinforcing stretch stitch
Bartacking
Stretch straight stitch
Basting stitch

Buttonholing



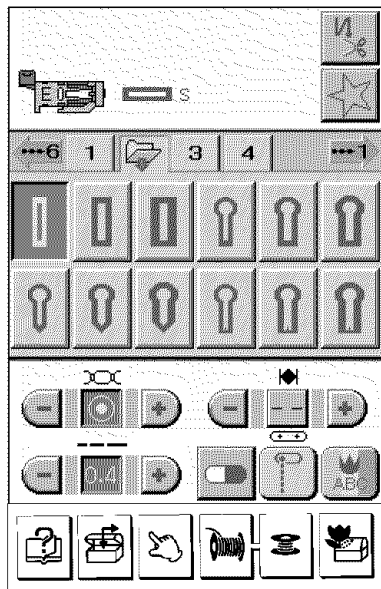
Small
Medium
Large
Eyellet buttonholing

Buttonholing

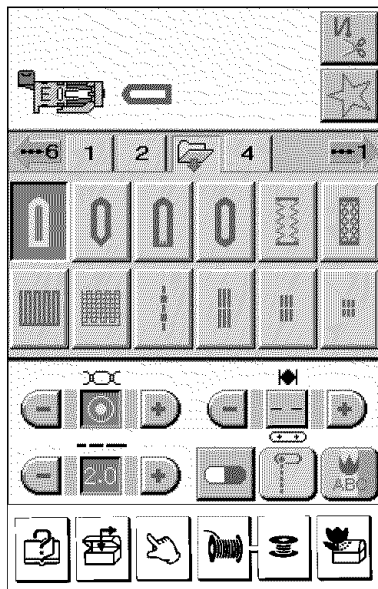


Eyellet buttonholing

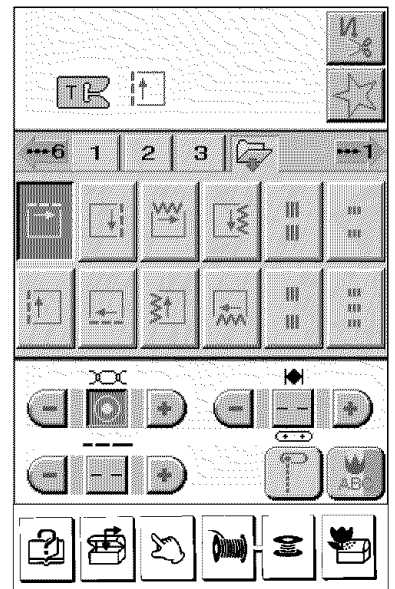
Second screen



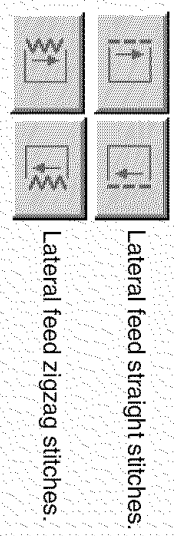
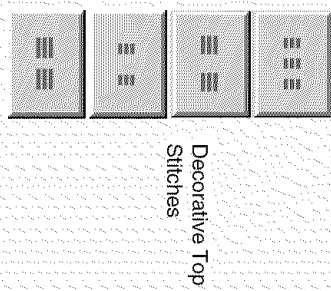
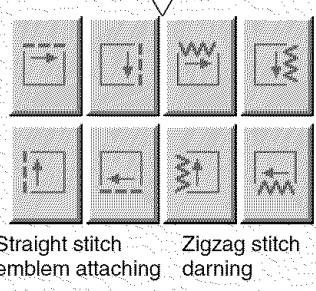
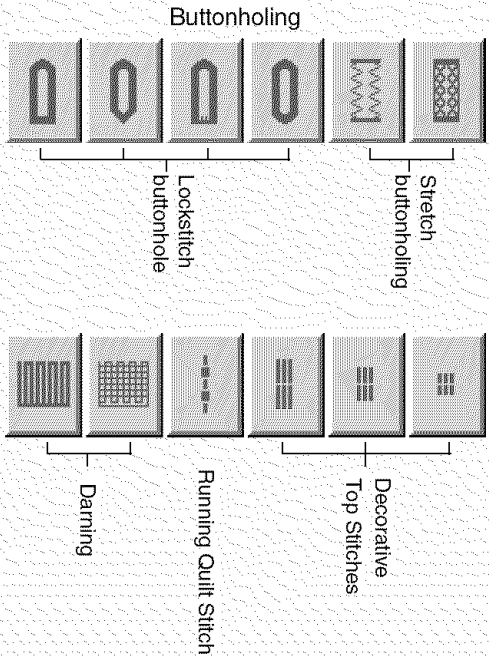
Third screen



Fourth screen

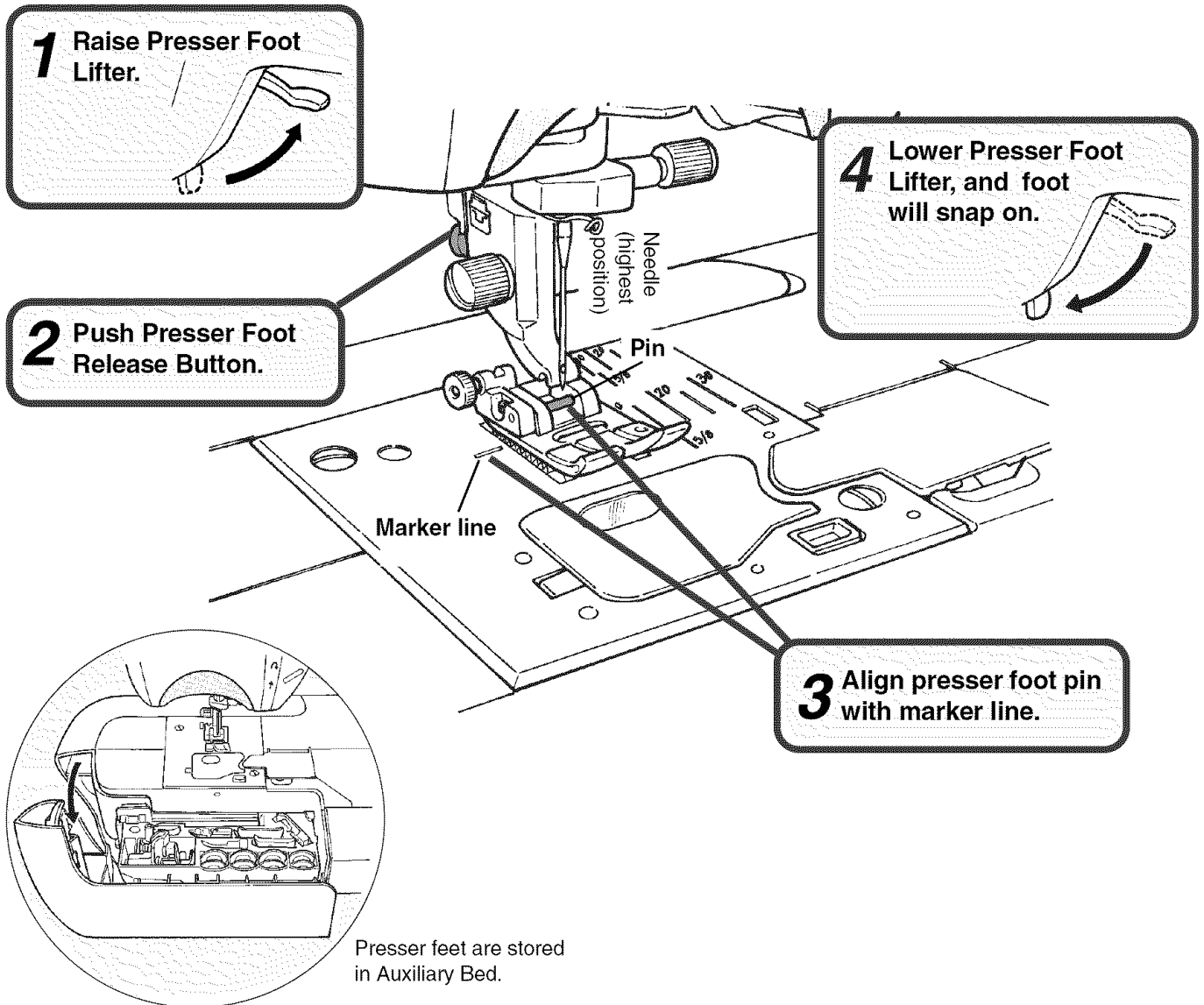


These stitches are used for tubular material sewing of trousers or sleeves. They also may be used for attaching patches, emblems or pockets.



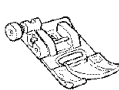





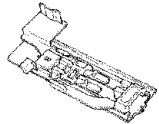














Changing Presser Feet

Be sure to turn off the power switch before replacing presser foot.




Types of Feed and Their Application

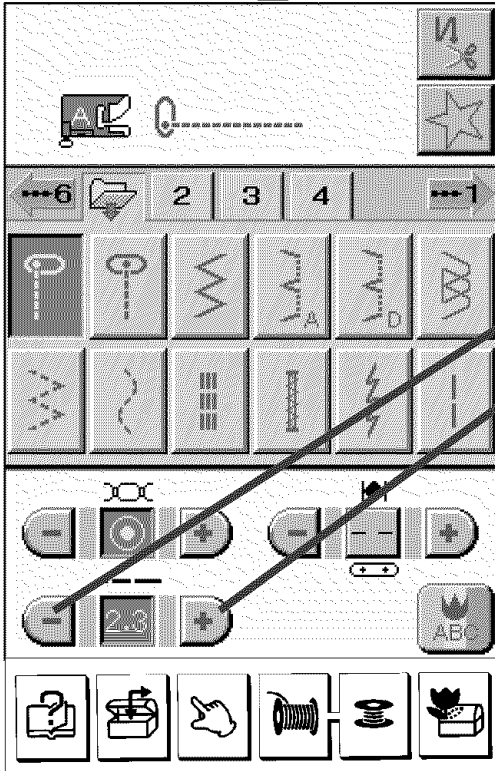
Select presser foot that matches stitch pattern to be sewn!

| | Standard presser foot | Decorative stitch foot | Invisible zipper foot | Zipper foot | Overcasting foot | Blindstitch presser foot | Buttonhole foot | |
|----------------------|--|---|--|--|---|--|---|--|
| Presser foot |  A |  T |  G |  B |  C |  D |  E | |
| Stitch pattern |       | * Continuous stitching * Stitch pattern  |  |  |  |  |    | |
| Typical applications | Straight stitch Quilting Pintuck Reinforcing stretch stitch Zigzag stitch Applique Quilting, etc. | Overcasting Multi-stitch zigzag (elastic stitch) Patchwork, Feather Stitch, etc | Pattern stitch | Invisible zipper setting | Zipper setting | Overcasting (overlocking) | Blindstitching | Darning stitch Bartacking Automatic buttonholing |

How to adjust stitch length (manually)

Sewing machine is designed to automatically select an optimum stitch length once a pattern is selected.

Stitch Length, Width and Tension show automatically on the 4 Utility Screens. For all other screens, stitch length, width and tension will be shown on a “pop-up” screen accessed by pressing  key.



For automatic stitch length adjustment, just touch pictogram of desired pattern.

Example of straight stitch



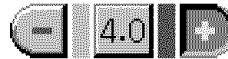
Fabric

For manual stitch length adjustment


Press  to decrease stitch length.

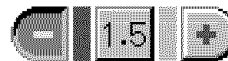
Press  to increase stitch length.

The smaller the number the shorter the stitch length. The larger the number, the longer the stitch length.



Fabric

A touch on the  pictogram will return the numeric value to the Automatic Stitch Length Setting of “2.3”.



















































Fabric

* Stitch length of Straight Stitch and ZigZag is Manually Adjustable from “0.0” to “5.0”.


* When the stitch length shows (- -), the pattern cannot be manually adjusted using the stitch length adjustment.

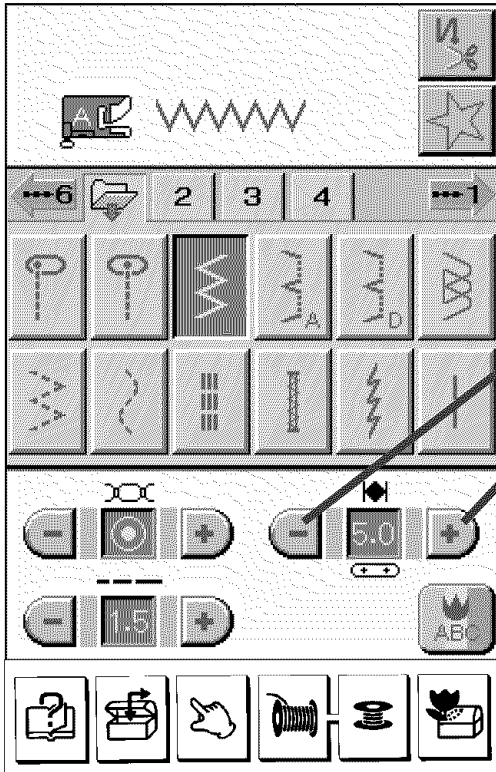
Stitch lengths by stitch pattern that are automatically selected and adjustable ranges

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|---|---|---|---|---|---|---|---|---|-----|-----|
| Stitch pattern |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | |
| Stitch length | Automatic | 2.3 | 1.5 | 2.0 | 1.0 | 0.5 | 10 | 0.4 | 0.5 | 0.6 | 0.5 | 0.6 | 0.5 | 0.6 | 0.5 | 0.6 | 0.5 | 0.6 | 0.5 | 0.6 | 0.5 | 0.6 | 0.5 | 0.6 | 0.5 | 0.6 |
| | Adjusted | 0.0 ~ 5.0 | | | | | | 0.0 ~ 1.0 | 5 ~ 20 | 0.0 ~ 1.0 | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|---|---|---|---|---|---|---|---|---|
| Stitch pattern |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Stitch length | Automatic | 0.4 | | | 1.0 | 2.0 | | -- | | | | | | | | | | | | | | | | |
| | Adjusted | 0.0 ~ 1.0 | | | 0.0 ~ 2.0 | | 2.0 ~ 4.0 | | -- | | | | | | | | | | | | | | | |

How to change Zigzag Width or Needle Position

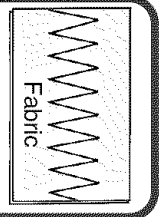
Stitch Length, Width and Tension show automatically on the 4 Utility Screens. For all other screens, stitch length, width and tension will be shown on a “pop-up” screen accessed by pressing  key.



1. Zigzag width


For automatic zigzag width adjustment, just touch pictogram of desired pattern.

Example of zigzag stitching

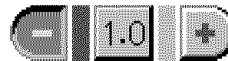



For manual zigzag width adjustment

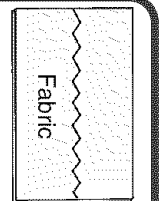
Press  to decrease stitch length.

Press  to increase stitch length.

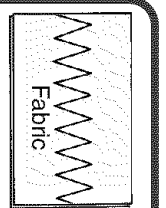
The smaller the number the narrower the zigzag width.



A touch on the  pictogram will return the numeric value to the Automatic Stitch Width Setting of “5.0.”



The larger the number the wider the zigzag width. The maximum width is 7.0 mm.



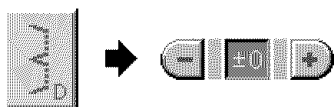
2. Straight Stitch Needle Position

The needle position for straight stitch sewing may be adjusted to any one of 22 different positions within the presser foot by use of the Stitch Width Control. Adjustment ranges from full left position (0.0) to full right position (7.0). The lower the number the further left position. The higher the number the further right.

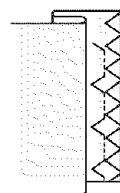
3. Needle position for Blindhemming


This function is used to adjust needle entry point for blindstitching.

Example Needle position/zigzag width

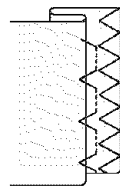



In the case where seam does not reach fold:



Press  to shift needle entry point to left.
(Turn handwheel first to check current needle entry point. Then, raise needle and start adjusting needle entry point.)

In the case where seam goes far over crease:



Press  to shift needle entry point to right.
(Turn handwheel first to check current needle entry point. Then, raise needle and start adjusting needle entry point.)

How to adjust thread tension (manually)

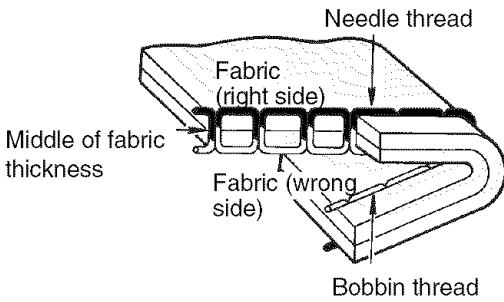
The sewing machine has an automatic computer controlled thread metering system that calculates and delivers the precise amount of thread for each needle penetration to create the optimum appearance of each stitch. An override control is available to allow for individual modification for specialized effects.


To change thread tension for special-purpose stitching style, follow procedure described below:

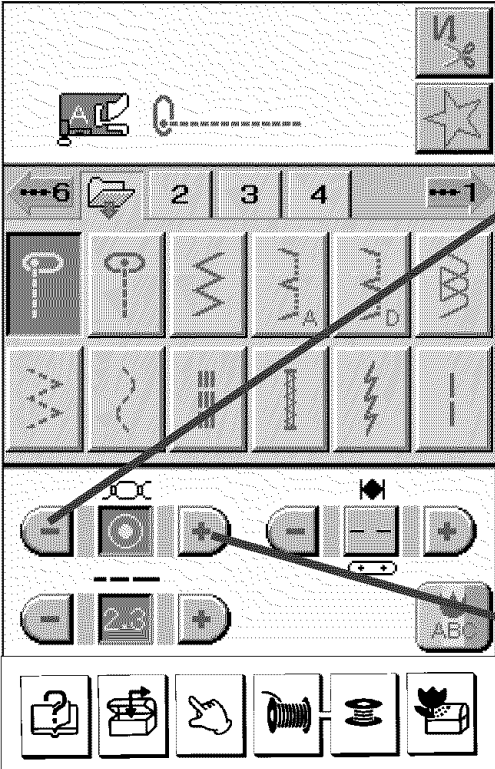
Example of Balanced Tension for Sewing Straight Stitch


* For straight stitch sewing and most all construction sewing, a well balanced tension is when the needle thread and the bobbin thread interlace with each other in the middle of the fabric thickness.

* For most decorative sewing and embroidery sewing the needle thread and the bobbin thread should interlace with each other on the bottom of the fabric thickness.

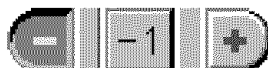
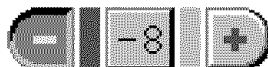


Tension shows automatically on the 4 Utility Screens. For all other screens, tension will be shown on a “pop-up” screen accessed by pressing  key.

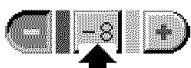



Press  to decrease needle thread tension.

Thread tension decreases in eight steps.

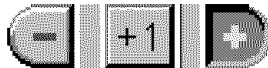
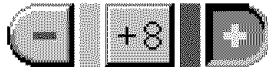



* To return the thread tension to the automatic setting, press the center of the tension pictogram. For example touching the -8 will return the machine to automatic tension setting.

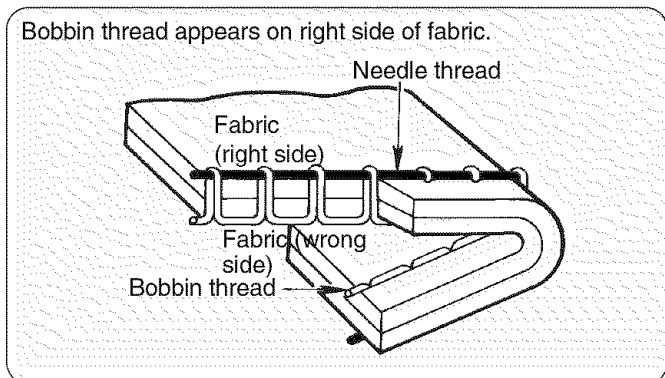


Press  to increase needle thread tension.

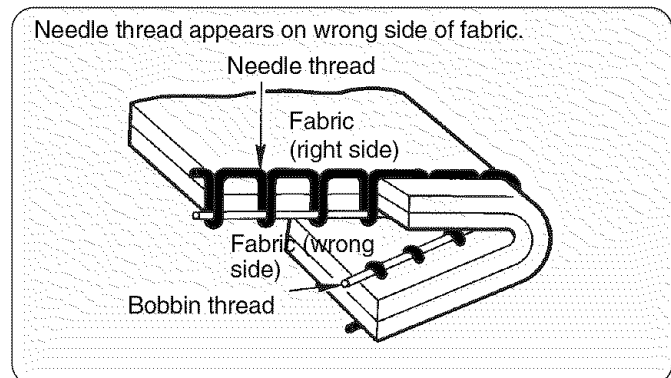
Thread tension increases in eight steps.

When thread tension is increased:



When thread tension is decreased:



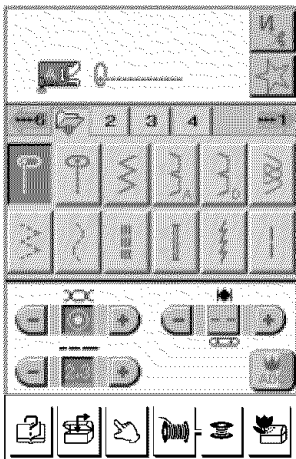
* For shirring and gathering, manually adjust stitch length and thread tension. (See page 43.)

How to use key

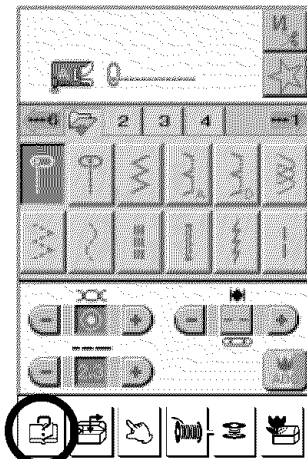
(1) Stitching procedure

* Your Computerized sewing machine shows basic operations (stitching procedure, use of sewing machine, tips and problems) under the Advise Section of the LCD Screen. This allows a quick way of finding information without the necessity of referring to the Instruction Manual.

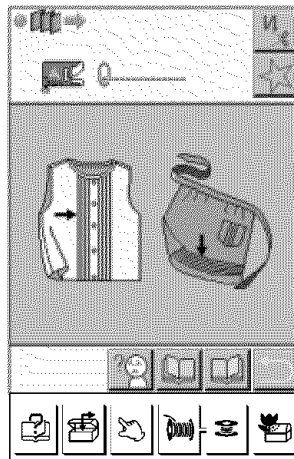
1 Select a stitch pattern.




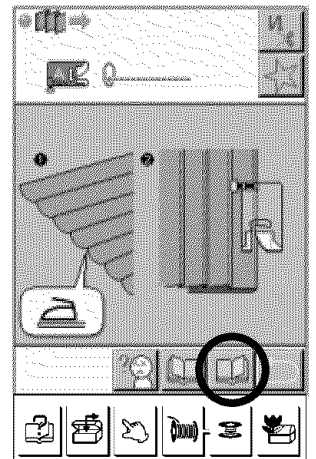
2 Press advice  key.



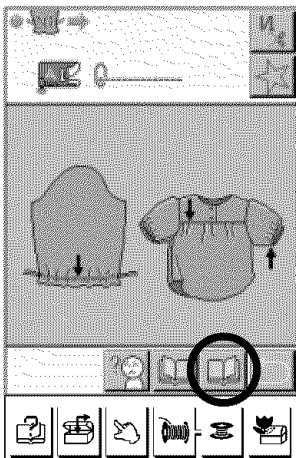
3 Advice that tells stitching styles that can be sewn with pattern shown on screen.




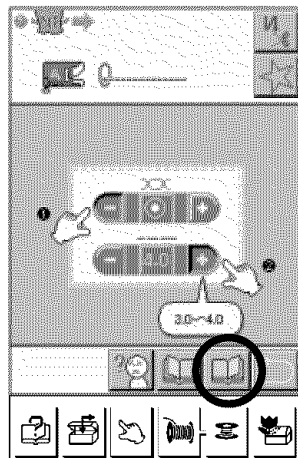
4 Press  picto, and screen will appear as shown below:




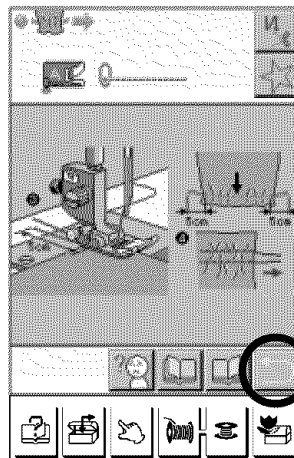
5 Press  picto, and screen will appear as shown below:



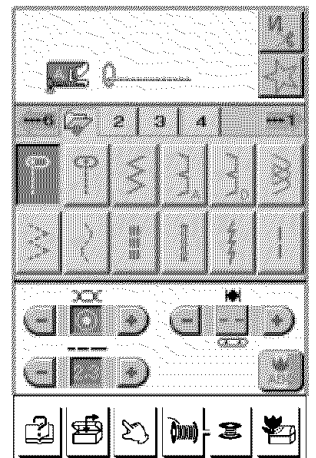
6 Every press on  picto will activate the next screen.



7 To return to utility pattern screen, press  picto.




















































8



* A press on  pictogram will activate previous screen.

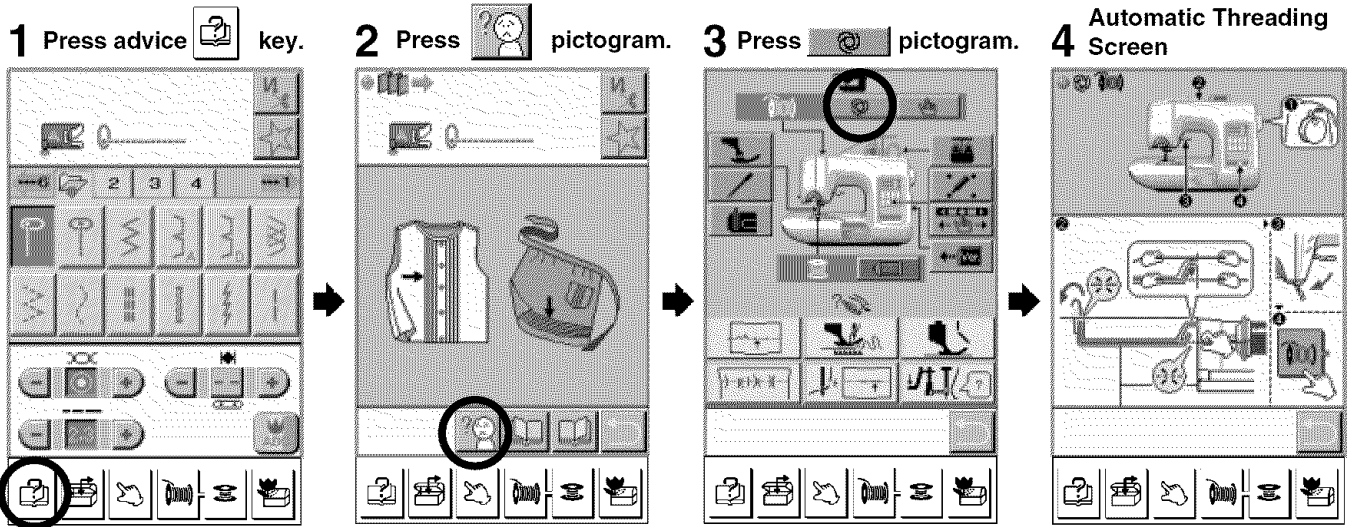
Stitching style indication symbols and number of screens

| | | | | | |
|---|-----------|---|-----------|--|----------|
|  Pin tuck  Gathering  Shirring  Invisible zipper setting | 2 screens |  Eyelet buttonholing | 9 screens |  Running Quilt stitch | 1 screen |
| | 3 screens | | 9 screens | | 1 screen |
|  Setting zipper on the side placket  Butt zipper setting  Zipper setting for small articles | 3 screens |  Eyelet buttonholing | 9 screens |  Decorative Top Stitch | 1 screen |
| | 1 screen | | 9 screens | | 1 screen |
|  Overcasting | 1 screen |  Eyelet buttonholing | 9 screens |  Lateral feed: straight stitch, right | 1 screen |
|  Heirloom / Couching | 1 screen |  Eyelet buttonholing | 9 screens |  Lateral feed: straight stitch, lower | 1 screen |
|  Blindhem stitching | 5 screens |  Eyelet buttonholing | 9 screens |  Lateral feed: straight stitch, left | 1 screen |
|  Overcasting | 1 screen |  Eyelet buttonholing | 9 screens |  Lateral feed: straight stitch, upper | 1 screen |
|  Overcasting | 1 screen |  Eyelet buttonholing | 9 screens |  Lateral feed: zigzag, right | 1 screen |
|  Decorative stitch | 1 screen |  Lockstitch buttonholing | 9 screens |  Lateral feed: zigzag, lower | 1 screen |
|  Reinforcing stretch stitch | 1 screen |  Lockstitch buttonholing | 9 screens |  Lateral feed: zigzag, left | 1 screen |
|  Bartacking | 4 screens |  Lockstitch buttonholing | 9 screens |  Lateral feed: zigzag, upper | 1 screen |
|  Stretch straight stitch | 1 screen |  Lockstitch buttonholing | 9 screens |  Decorative Top Stitch | 1 screen |
|  Basting stitch | 1 screen |  Stretch buttonholing | 9 screens |  Decorative Top Stitch | 1 screen |
|  Buttonholing | 9 screens |  Stretch buttonholing | 9 screens |  Decorative Top Stitch | 1 screen |
|  Buttonholing | 9 screens |  Darning | 1 screen |  Decorative Top Stitch | 1 screen |
|  Buttonholing | 9 screens |  Darning | 1 screen | | |

How to use key












2) Use of sewing machine

Example: When you want to know how to perform “automatic needle threading”:



* A press on  pictogram will return to previous screen.


Contents of Machine Usage

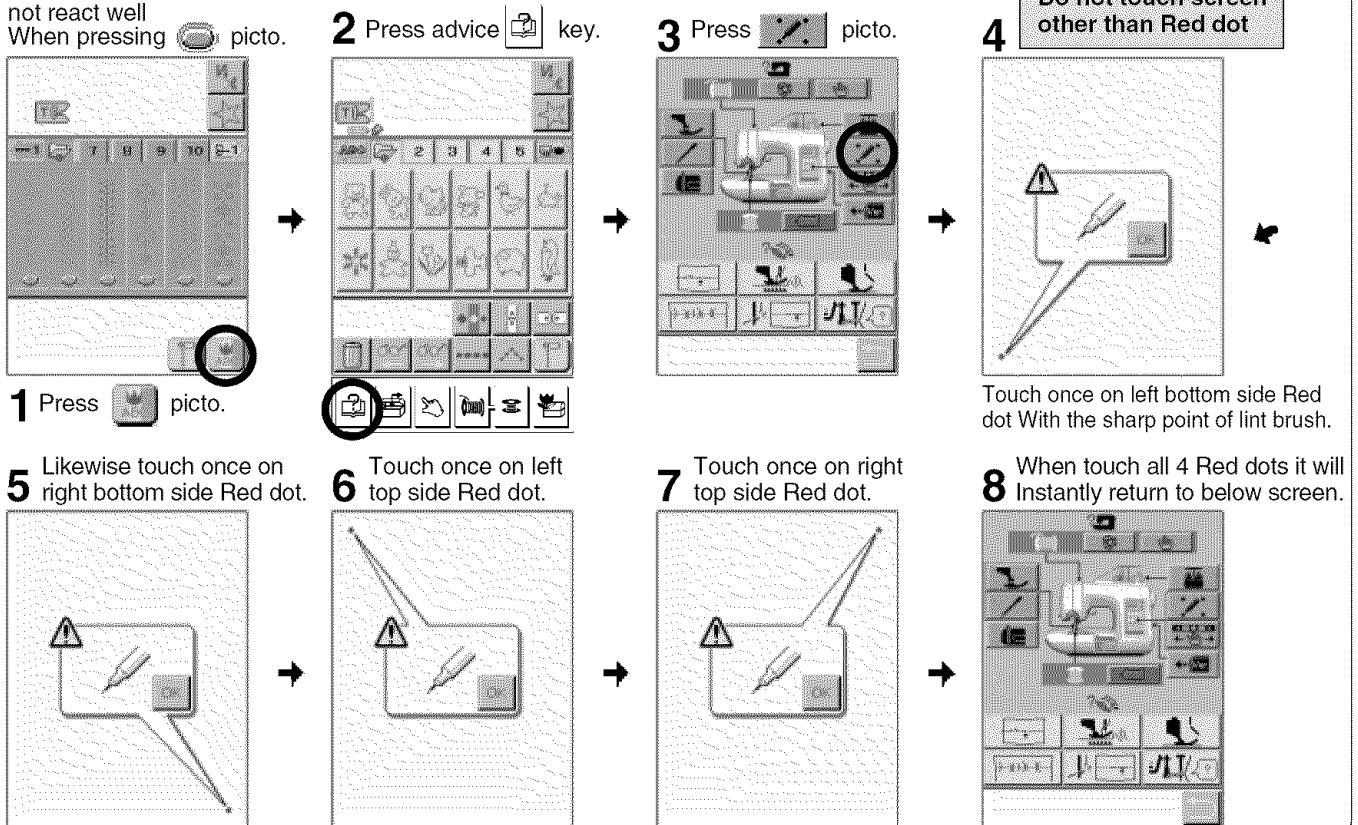
| | | | | | |
|---|----------------------------|---|----------------------------------|---|---|
|  | Automatic needle threading |  | Needle changing |  | Embroidery date transfer through PC Connection (See page 113) |
|  | Manual needle threading |  | Conversion to Embroidery Machine |  | Customize (user) Options (See pages 115 to 117) |
|  | Automatic bobbin winding |  | Thread Exchanger |  | Update (See page 118) |
|  | Presser foot changing |  | 4-dot adjustment | | |

4-dot adjustment (Pictogram position adjustment)

In the case screen does not react well when pressing prescribed picto on screen.

Example)

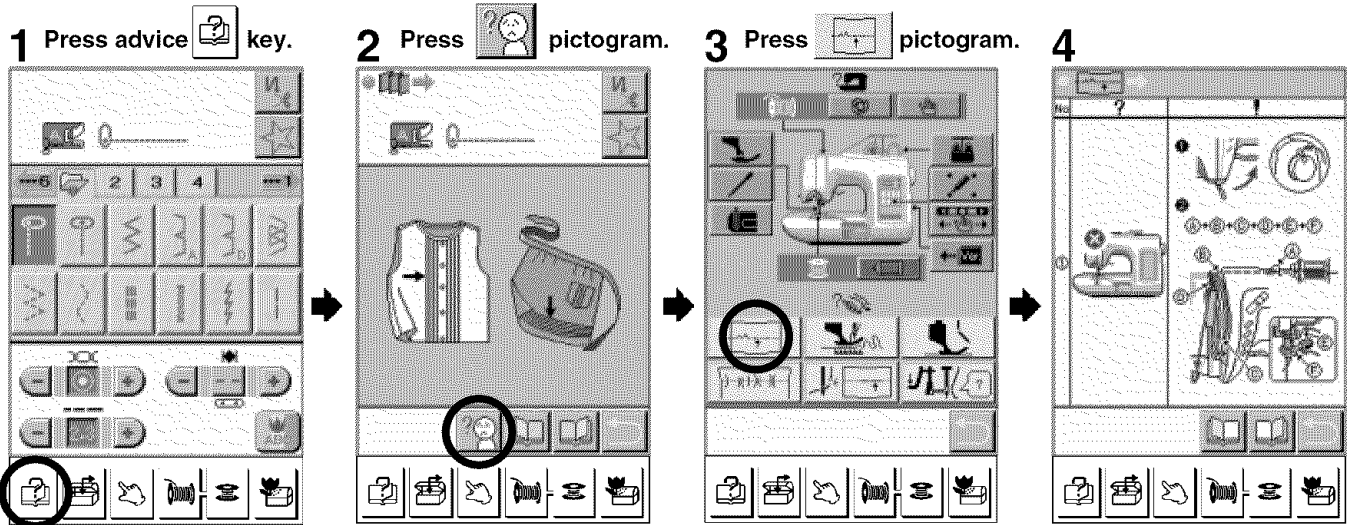
In the case screen does not react well
When pressing  picto.




How to use key

(3) Tips

Example: When you want to know “how to cure looping or poor stitching.”

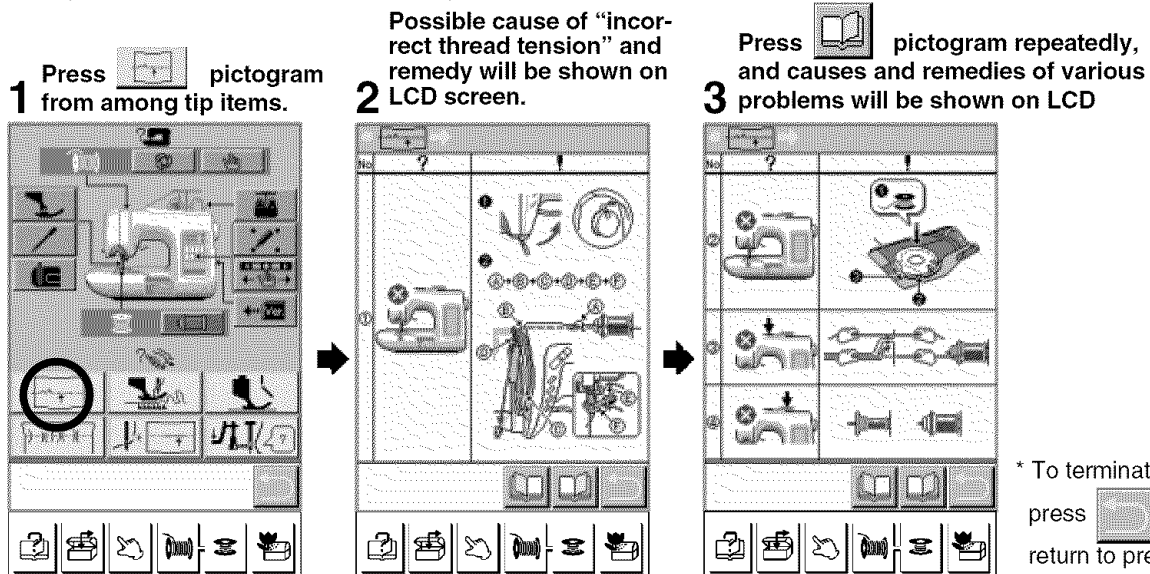



* In the case where there are two or more explanation screen, press  pictogram to see the next “page” (screen).

* To terminate operation, press  pictogram to return to previous screen.

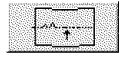
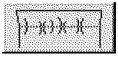


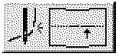

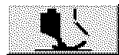

When thread tension is inadequate or problem has occurred, follow procedure described below:

Example: When thread tension is not adequate:



* To terminate operation, press  pictogram to return to previous screen.

Contents of Advice

| | | | | | |
|---|---------------------------|---|---|---|---|
|  | Inadequate thread tension |  | Seam puckering |  | Combination Embroidery |
|  | Faulty material feed |  | Thread breaks or stitch skips | |  |
|  | Needle breaks |  | Automatic Needle Threading will not work. | | |

Fabric, Thread And Needle Table

Your fabric will determine choice of needle and thread. The following table is a practical guide to needle and thread selection. Always refer to it before a new sewing project. And be sure to use same size and type of thread in bobbin as in top thread supply.

| Fabric | Thread | Needles | |
|---|---|---|---------------------------|
| | | TYPE | SIZE |
| Fabric below can be of any fiber, cotton, linen, silk, wool, synthetic, rayon, blends. They are listed as examples of weight. | | Failure to use a Singer brand needle may result in skipped stitches or poor sewing performance. | |
| Very Lightweight-Batiste, Chiffon, Organza, Voile. Also all microfiber or microdenier fabrics. | Cotton-wrapped polyester core (extra fine) Long fiber polyester (extra fine) | 2000 red shank | 9/70 or 11/80 orange band |
| Lightweight Challis, Chambray, Charmeuse, Crepe de Chine, Gauze, Handkerchief Linen, Silk, Taffeta, Tissue faille. | Cotton-wrapped polyester core (all purpose) Long fiber polyester (two spun) | 2000 red shank | 11/80 orange band |
| Medium-weight Broadcloth, Brocade, Chino, Chintz, Corduroy, Flannel, Linen, Poplin, Satin, Synthetic, Suedes, Taffeta, Terry, Velvet. | Cotton-wrapped polyester core (all purpose) Long fiber polyester (two spun) | 2000 red shank | 14/90 blue band |
| Medium to heavy-weight Coating, Damask, Denim, Drapery Fabric, Fake Fur, Gabardine, Ticking, Woolens. | Cotton-wrapped polyester core (all purpose) Long fiber polyester (two spun) | 2000 red shank | 16/100 purple band |
| Heavy-weight Canvas, Duck, Sailcloth, Upholstery Fabric. | Cotton-wrapped polyester core (all purpose) Long fiber polyester (two spun) | 2000 red shank | 18/110 |
| Leather | | 2032 leather | |
| Knits Jersey, Tricot, Single Knit | Cotton-wrapped polyester core (all purpose) Long fiber polyester (two spun) | 2001 yellow shank | 11/80 orange band |
| Sweatshirt Double Knit, Swimwear, Sweater Knit | Cotton-wrapped polyester core (all purpose) Long fiber polyester (two spun) | 2001 yellow shank | 14/90 blue band |

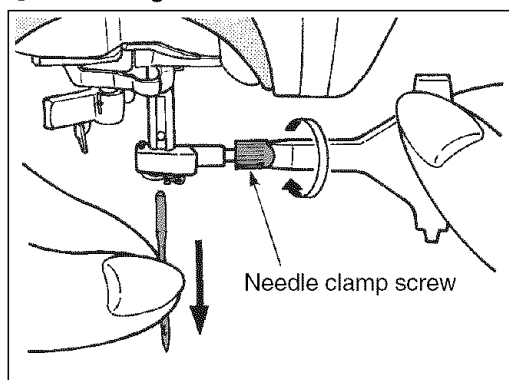
* Use with standard sewing thread in bobbin.

Note: Singer strongly recommends the use of Singer Needles Type 2000 and 2001. These are Platinum Quality Needles with Special Features to improve Automatic Threading, Sewing and Needle Durability.

How to Remove and Insert Needles

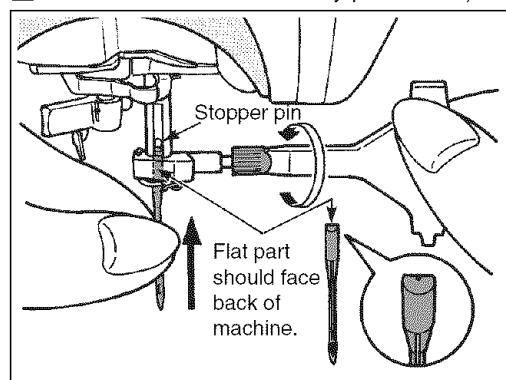
Caution Make sure power/light switch is off before inserting needle.

1 Removing needle.



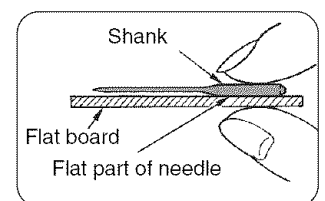
- (1) Lift needle to its upper end.
- (2) Loosen needle clamp screw.

2 Attaching needle. (Needle cannot be inserted unless it is correctly positioned.)



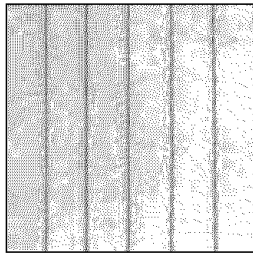
Press needle against stopper pin with its flat part faced away from you. Tighten needle clamp screw.

* Checking needle



With a good needle, a uniform clearance will be provided between needle shank and flat plane of board over length. Do not use a needle that has a bent or blunt point.

Straight stitch



Stitch pattern to be selected

Presser foot to be selected

Standard presser foot (A)

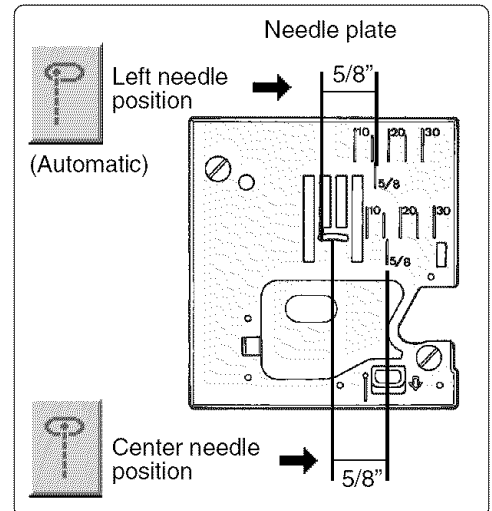
Straight stitch is basic stitching style.
Select needle and thread that matches fabric to be used.

Needle entry point

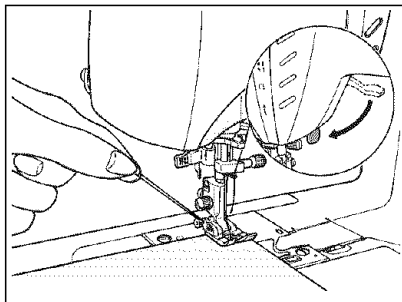
Left needle position Center needle position

: Left needle position (Automatic needle position)
: Center needle position
: Elastic fabric straight stitch

Seam Guides

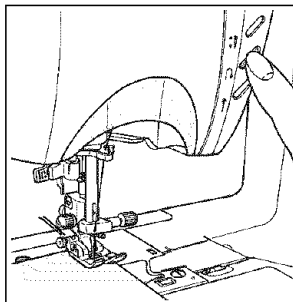


1 Place fabric under presser foot and lower presser foot.



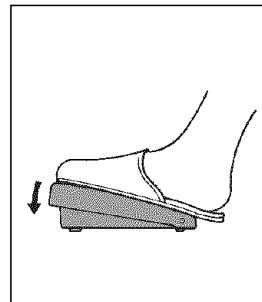
Place fabric under presser foot. Lower needle to enter fabric at beginning of stitches to be sewn. Holding needle thread and bobbin thread together, lower presser foot over those threads and fabric.

2 Press reverse stitch button.

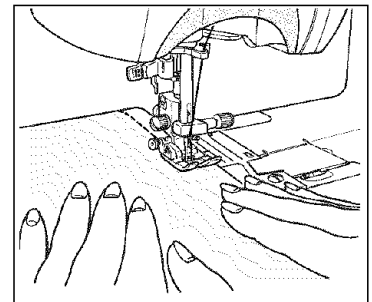


Sewing machine will sew in reverse as long as button is held pressed.

3 Begin sewing.

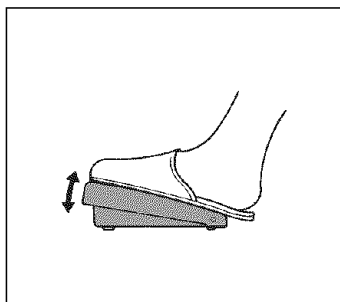


4 Lightly support fabric with both hands.



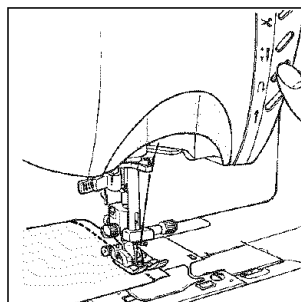
Do not forcibly pull fabric while it is being sewn.

5 Adjust sewing speed.

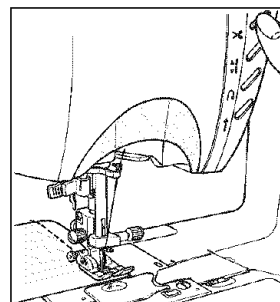


NOTE: The Speed Controller Lever may be used to limit the top speed.

6 Press reverse feed button.

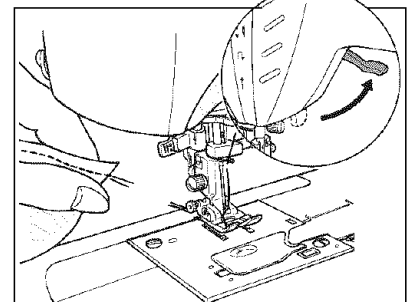


7 Cut threads.



Press Thread Trimming Button.

8 Lift presser foot and remove fabric.



Wait until needle totally stops. Then, raise presser foot lifter. Both needle thread and bobbin thread are automatically trimmed. Then, you can remove fabric.

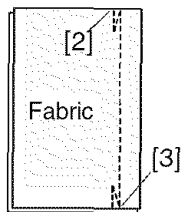
Automatic back tacking (reverse stitching)

Select first stitch pattern to


be sewn. Press  pictogram.

Sewing machine will sew three reverse stitches (back tack stitches) both at beginning and end of seam, perform thread trimming of both needle thread and bobbin thread at end of seam and stop.

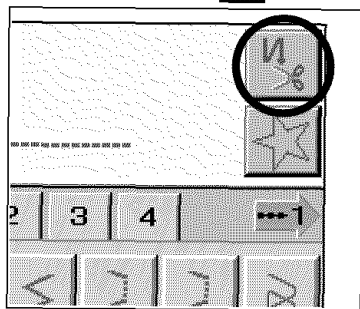
Example:
Straight stitch





***Automatic back tacking can be reset in three different procedures:**

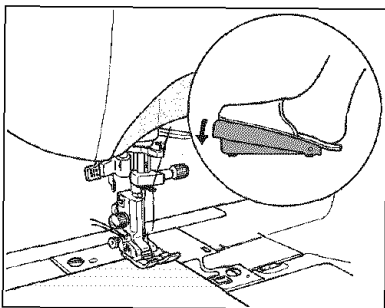
- (1) Re-press  pictogram.
- (2) Select another stitch pattern.
- (3) Turn off, then on power to machine.

[1] Select a stitch pattern to be sewn. Then, press  picto.



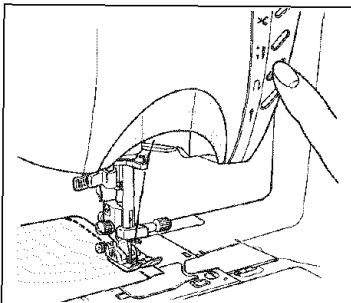
 pictogram will be shown in reverse video as .

[2] Place fabric at beginning position of sewing and start sewing machine.



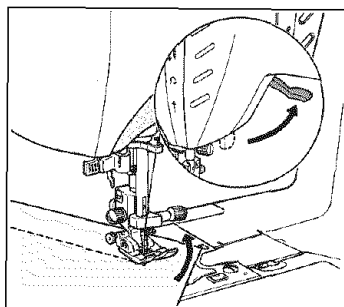
Sewing machine will sew three reverse stitches and will continue sewing in normal direction.

[3] Press reverse stitch button.

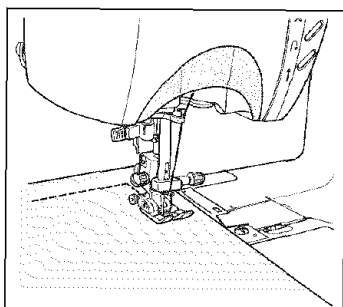


Press reverse stitch button when machine reaches predetermined position of fabric. Machine will sew three reverse stitches. Then, machine will automatically stop at predetermined position to trim both needle thread and bobbin thread.

Changing sewing direction



Stop machine in desired position. Lower needle into fabric. Lift presser foot, and turn fabric in desired sewing direction.

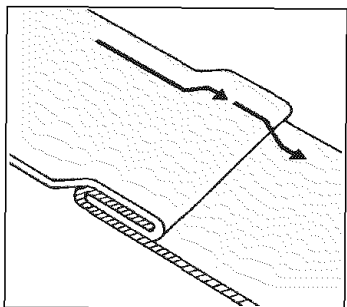


Lower presser foot and start sewing.

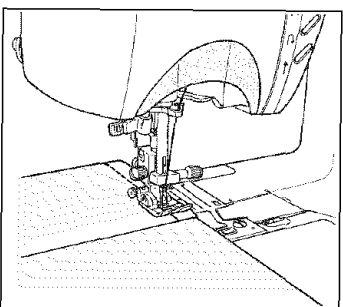
Note: Use of the Knee Lifter Accessory is very useful for raising and lowering the presser foot when changing direction.



Sewing overlapping seam allowances

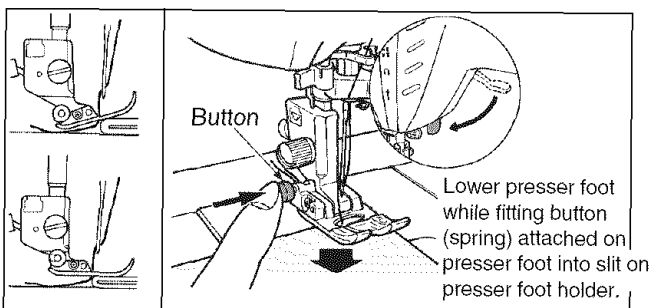


Overlapping seam allowances or a part that has a significant difference in height should be sewn in direction illustrated to avoid the foot catching in the fold of the fabric.



Carefully sew overlapping seam allowances while helping fabric feed with hands.
* For a light-weight fabric, carefully sew beginning of seam while gently pulling needle thread and bobbin thread in direction of feed.

Starting sewing of heavy-weight fabric

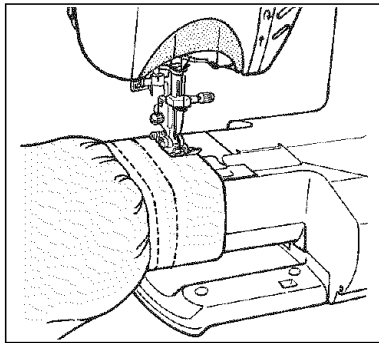


Lower presser foot while fitting button (spring) attached on presser foot holder.

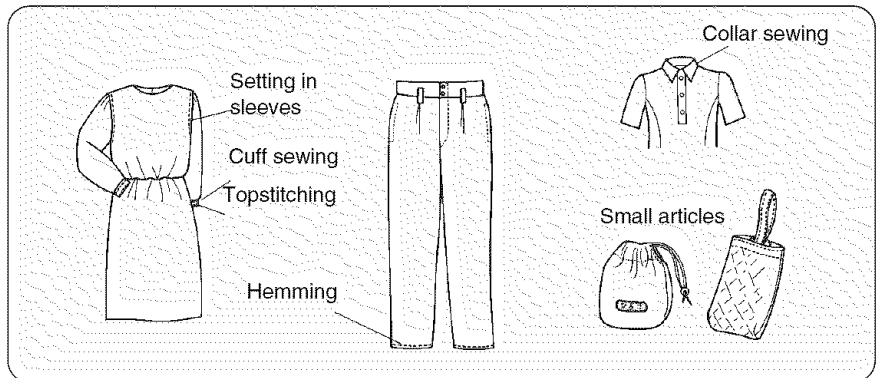
To sew overlapping seam allowances from fabric edge, use the lock button on Presser Foot A. When you press the lock button, presser foot will be temporarily locked parallel to the fabric to ensure smooth sewing.

Free Arm Sewing

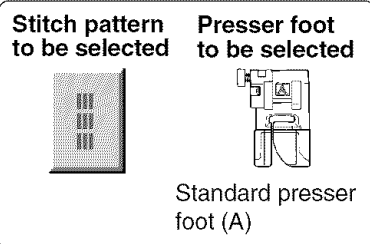
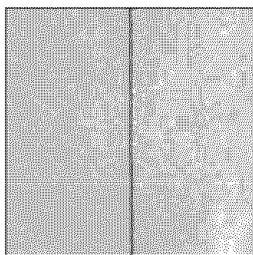
Free arm sewing capability is very useful for sewing circular fabrics such as cuffs, attaching facing to armhole of sleeveless garment, sewing lower sleeve edge and sewing bottom of trousers.



Draw auxiliary bed to left until it comes off.

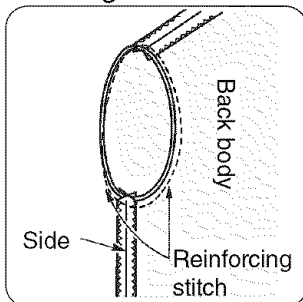


Reinforcing stretch stitch



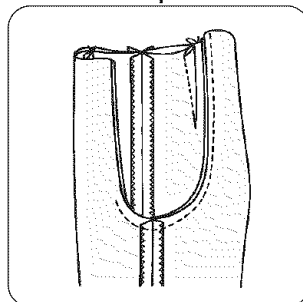
Reinforcing stretch stitch helps reinforce seams when used for sewing knit fabrics or to reinforce high stress areas such as the crotch of pants and under-arm seams.

Setting sleeve



Reinforcing stretch stitch is used to reinforce these parts.

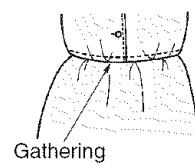
Crotch of pants



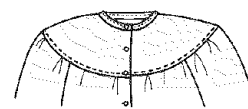
Reinforcing stretch stitch is used to reinforce the crotch of pants.

Other applications

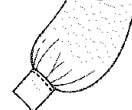
Joining top and bottom



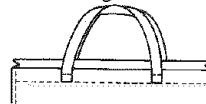
Attaching yoke



Attaching cuff



Bags

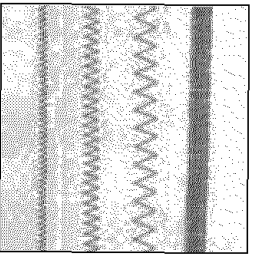


Attaching pocket



In the case where one of the pieces of materials to be joined has gathers, tucks or pleats (such as joining top and bottom, attaching cuff and attaching yoke), reinforcing stretch stitch can help reinforce the seam.

Zigzag stitch

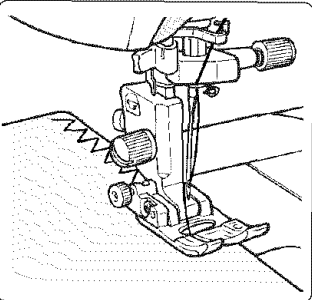


Stitch pattern to be selected

Presser foot to be selected

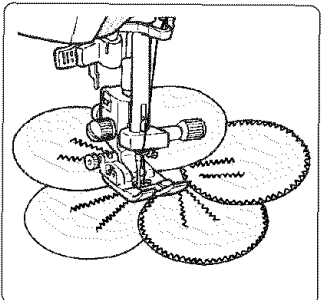
Standard presser foot (A)

For overcasting



Position fabric under presser foot so that needle enters just fabric edge.

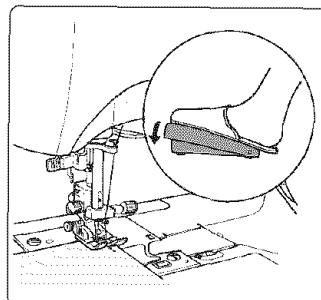
For applique



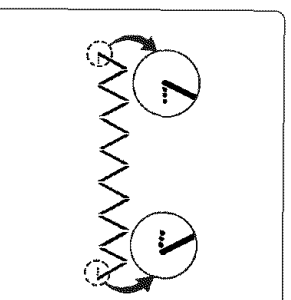
To sew curved part, select zigzag stitch pattern (small) or (medium) to produce narrow width and short length stitches. Adjust position of fabric so that needle enters slightly outside applique parts.

Automatic back tacking

Select a stitch pattern to be sewn and press pictogram. Place fabric at sewing starting position and start machine.



Sewing machine sews three back tack stitches first, and continuously sews the material in normal direction.



When predetermined seam end is reached, press reverse stitch button. Then, machine will back tack three stitches, stop at predetermined position and trim both needle thread and bobbin thread.

* Be sure to stop machine with reverse stitch button. If you stop machine without pressing reverse stitch button and re-start sewing from a different sewing position, machine will start sewing of previous stitch pattern without performing back tacking (unless you select a different stitch pattern).

Zigzag width/stitch length of zigzag stitch patterns

| Zigzag width (example) | Zigzag width, automatic | | |
|-------------------------|-------------------------|-----------|-----------|
| | 2 | 3 | 5 |
| Automatic | | | |
| Stitch length | 1.5 | 1.5 | 1.5 |
| Manual adjustment range | | | |
| | 0.2 ~ 4.0 | 0.2 ~ 4.0 | 0.2 ~ 4.0 |

* Adjustable range of zigzag width is 0 to 7 mm.

Zigzag width

Automatic zigzag width:

Manual zigzag width: Set a new width by changing zigzag width shown on LCD screen.

To change zigzag width, press or pictograms.

Stitch length

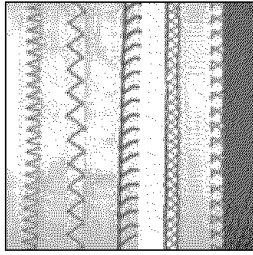
Automatic stitch length:

Manual stitch length: Set a new length by changing stitch length shown on LCD screen.

To decrease stitch length, press pictogram.

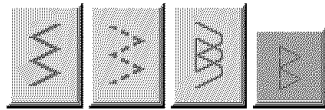
To increase stitch length, press pictogram.

Overcasting



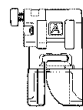
This stitch style is used to prevent cut edge of material from fraying.

Stitch pattern to be selected

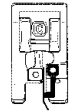


There are 4 Overcasting Stitches that can be used for overcasting.

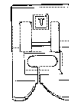
Presser foot to be selected



Standard presser foot (A)



Overcasting foot (C)



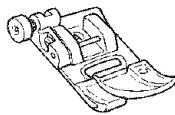
Decorative stitch foot (T)

Caution:

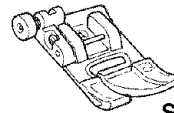
Use overcasting foot (C) only for overcasting pattern



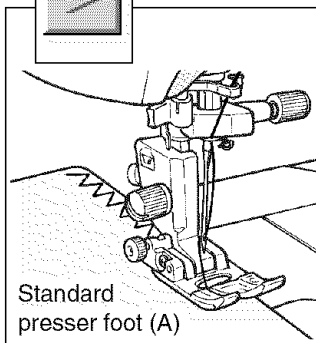
If overcasting foot is used for any other stitch pattern, needle will hit against it.



Standard presser foot (A)



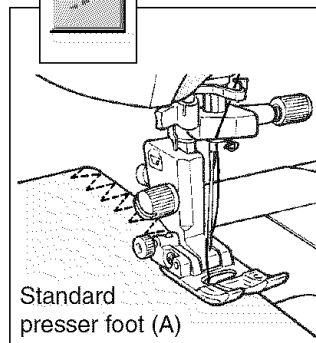
Standard presser foot (A)



Overcasting with zigzag stitches

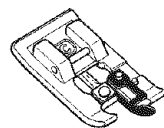
This stitch style is used for overcasting cut edge of light-weight material that is likely to curl up.

* For overcasting light or medium-weight fabric, decrease zigzag width.

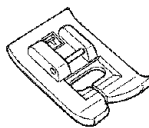


Overcasting with 3-step zigzag stitches

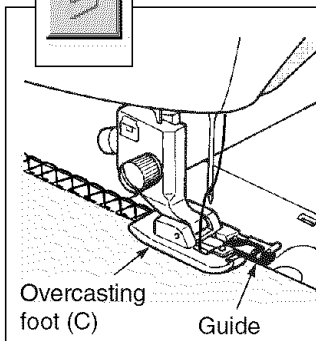
This stitch style is used for overcasting fabric that is likely to fray or knit type fabrics.



Overcasting foot (C)



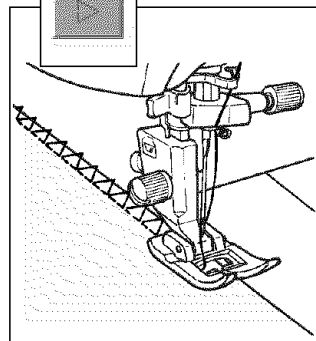
Decorative stitch foot (T)



Overcasting with Special Overlocking Stitch

This stitch style is widely used for preventing cut edge of fabric from fraying. When using this foot, position fabric with cut edge of fabric pressed against overcasting foot guide.

This pattern is also great for overlocking two or more layers of fabric together.

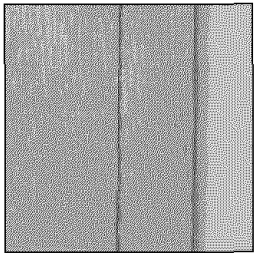


Overcasting with Special Continuous Overlock Stitch

This stitch style is widely used for preventing cut edge of fabric from fraying.

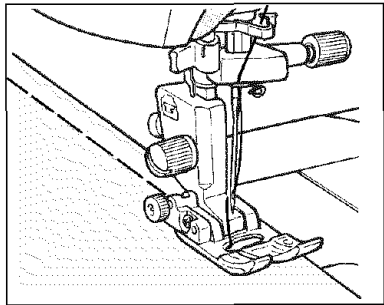
This pattern is also great for overlocking two or more layers of fabric together.

Basting stitch



| | |
|---|--|
| <p>Stitch pattern to be selected</p> | <p>Presser foot to be selected</p> <p>Standard presser foot (A)</p> |
|---|--|

The Basting Stitch is used to temporarily secure fabric.



Select Basting Stitch.

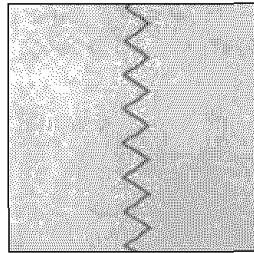
Holding both needle thread and bobbin thread together, draw them under the presser foot and towards the back of the sewing machine.

Start to sew.

The Basting Stitch automatically is set to 10mm stitch length. It is adjustable to 5-10-15-20 mm stitch length.



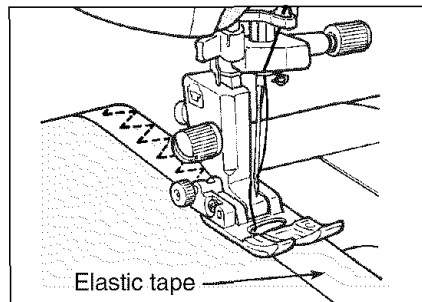
Multi-stitch zigzag stitch



| | |
|---|--|
| <p>Stitch pattern to be selected</p> | <p>Presser foot to be selected</p> <p>Standard presser foot (A)</p> |
|---|--|

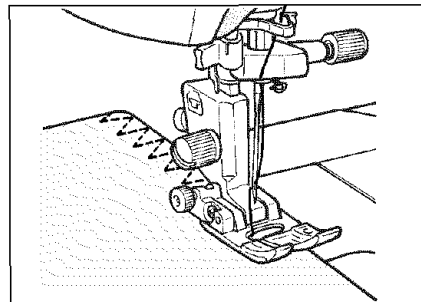
Multi-stitch zigzag stitch is used for attaching elastic tape, stay tape or overcasting cut edge of knit fabric.

■ Tape attaching with Multi-stitch zigzag stitches



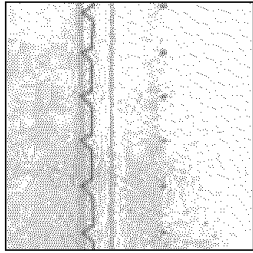
Sew elastic tape on body fabric while slightly stretching it.

■ Overcasting with Multi-stitch zigzag stitches




This stitch style is used for sewing fabric that is likely to fray or knit fabric. Position the fabric under the presser foot so that the needle enters just the edge of the material.

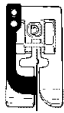
Blindstitching



Stitch pattern to be selected



Presser foot to be selected



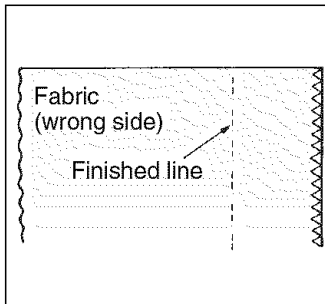
Blindstitching foot (D)

The Blindhem Stitch provides an easy and durable way to finish hems on skirts, dresses and pants. It is also useful for Home Decoration with Curtains and Draperies.

The Blindhem Pattern "D" is a Special Stitch designed to work specifically with Presser Foot (D). Instructions for use follow. Your sewing machine has two other Blindhem Patterns:

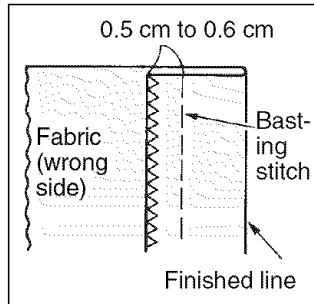
- * Blindhem Pattern "A" (on Utility Screen 1) is designed to work with Presser Foot (A) and is fully adjustable from 2.0 mm to 7.0mm stitch width.
- * There is also a Stretch Blindhem Pattern located in the lower right hand corner of the Number one screen of Continuous Patterns. This Blindhem Pattern is highly useful with knits.

1 First overcast raw edge.

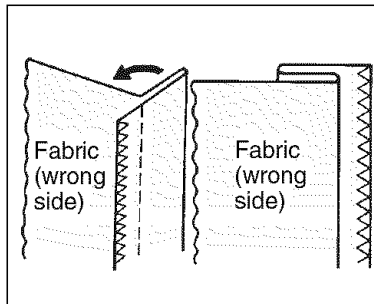


* Refer to page 32 for overcasting.
* Refer to page 33 for basting stitch.

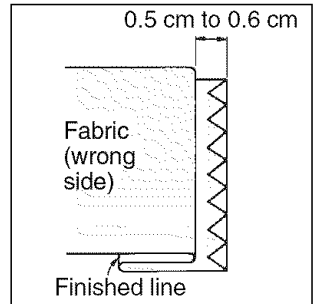
2 Bast Hem in place.



3 Fold fabric at basted line.

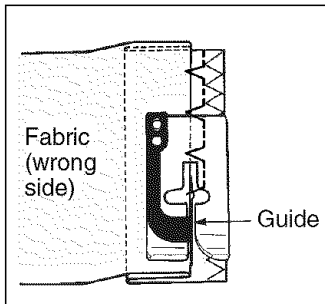


4



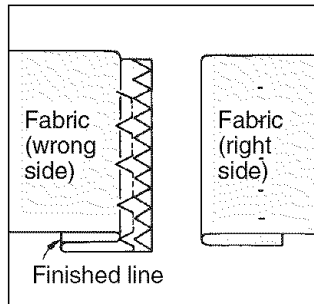
* Overcast edge of fabric should projects 0.5 to 0.6 cm from crease.

5 Position folded edge against guide and sew.



Be sure to place fold accurately against presser foot guide when sewing the blind hem.

6 Turn fabric over.



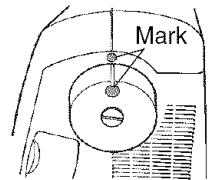
Turn the fabric to the right side, straighten and press if necessary.

Adjusting needle entry for Blindstitching

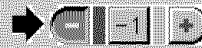
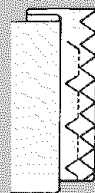
Adjust the needle entry using width pictogram



Align mark on handwheel with mark on machine head.

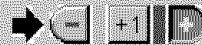
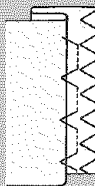


In the case where seam does not reach fold:



Press **-** key to shift needle entry point to left. (Turn handwheel first to check current needle entry point. Then, raise needle and start adjusting needle entry point.)

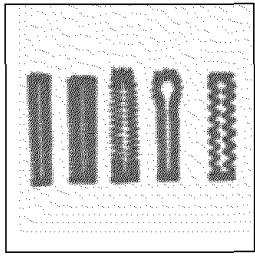
In the case where seam goes far over fold:



Press **+** key to shift needle entry point to right. (Turn handwheel first to check current needle entry point. Then, raise needle and start adjusting needle entry point.)

Automatic buttonholes

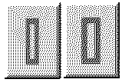
Double bartacking / eyelet buttonholing



Stitch pattern to be selected

Presser foot to be selected

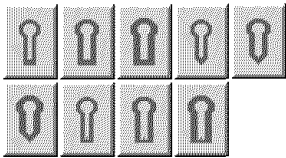
Buttonhole foot (E)



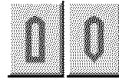
These stitch patterns are used for sewing small buttonholes on light-weight fabric (e.g., shirts and blouses).



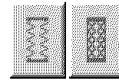
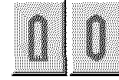
This stitch pattern is used for sewing large buttonholes on medium-weight fabric.



These stitch patterns are used for sewing large buttonholes on heavy-weight fabric (e.g., suits and overcoats).

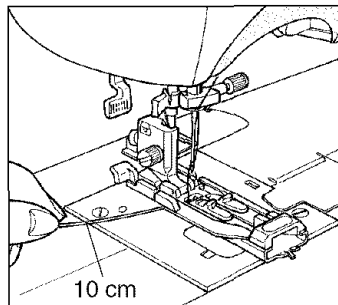


These stitch patterns are used for sewing large buttonholes on light-weight fabric (e.g., shirts and blouses).



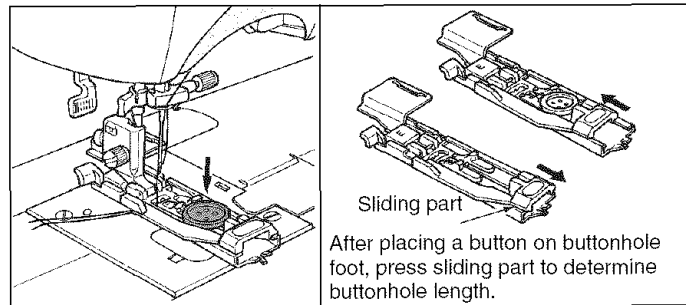
These stitch patterns are used for sewing buttonholes on knits.

1 Draw thread to side of presser foot.



Pass needle thread through and then under presser foot.

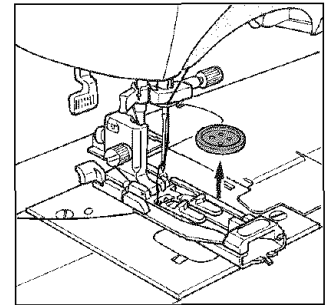
2 Lower buttonholing foot to place a button on it.



After placing a button on buttonhole foot, press sliding part to determine buttonhole length.

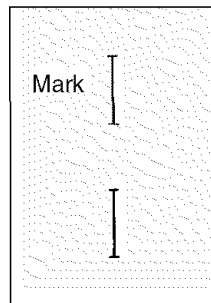
The buttonhole length is automatically determined only by placing a button on buttonhole foot. (If a button cannot fit in buttonhole foot, buttonhole length will be "button diameter + button thickness.")

3 Remove button.



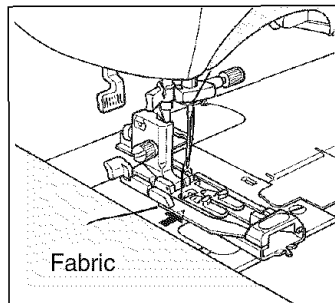
Once buttonhole length is determined, remove button from buttonhole foot.

4 Mark button-hole positions.

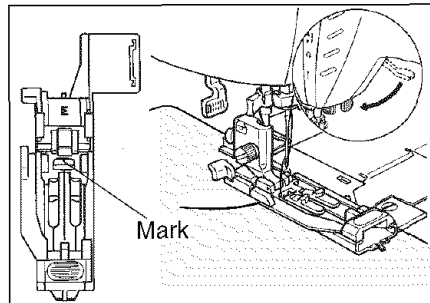


Draw marker lines on the fabric at buttonhole positions with an assistant marker.

5 Place fabric under buttonhole foot.

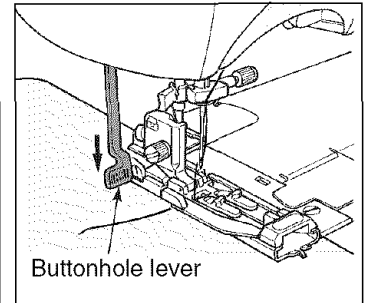


6 Lower buttonhole foot at marked position.

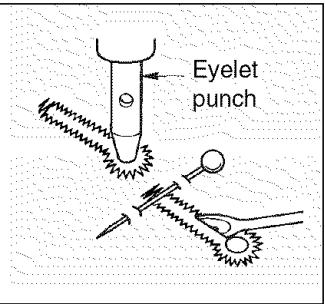
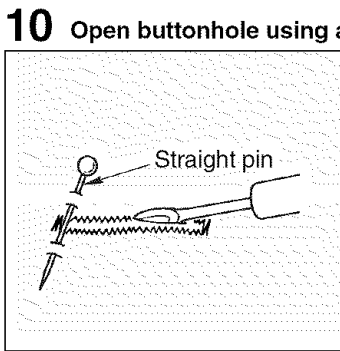
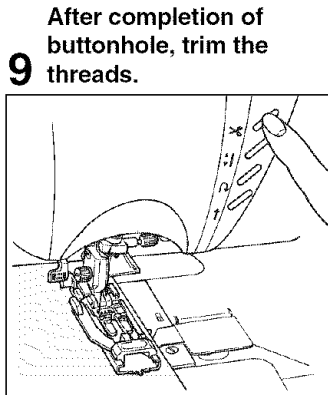
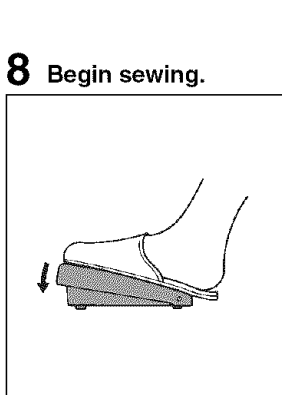
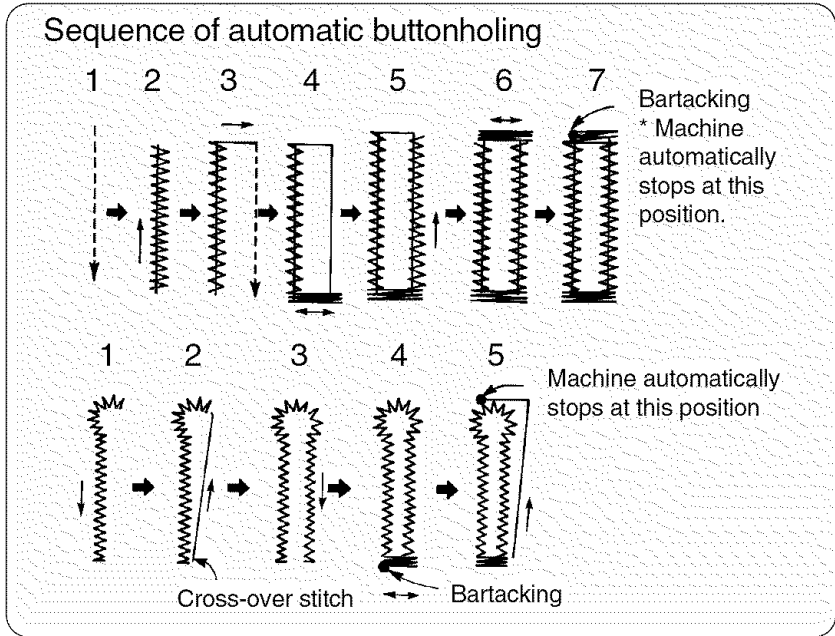


Lower buttonhole foot so that crosshair of mark is at center of needle in foot.

7 Lower buttonhole lever.



Lower lever until it will go no further.



Press Thread Trimming Button.
* From second buttonhole and beyond, lower buttonhole foot at next marker line on fabric for sewing buttonholes.

Open buttonhole at center of finished buttonhole with a seam ripper taking care not to allow ripper to cut seam. It is recommended to place a straight pin at bartacked part of buttonhole to help prevent over-cutting.

Place a piece of paperboard under fabric. Using an eyelet punch to cut out a round portion of eyelet. Then, use seam ripper.

*If buttonhole size is wrong or thread has run out during buttonholing, temporarily stop sewing machine, re-select stitch pattern and perform sewing from beginning.

For buttonholing hard-to-sew fabrics such as light-weight fabric or a part near multi-layered portion, install underplate to help create perfect buttonholes.

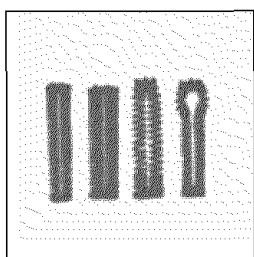
Underplate

1. Firstly, attach underplate to buttonhole foot. Then, attach buttonhole foot with underplate installed.
2. Place fabric in space provided between buttonhole foot and underplate.

* As with all buttonholes, sewing a test sample is recommended. With the underplate installed it may be necessary to increase thread tension.

Automatic buttonholes

Purl stitch



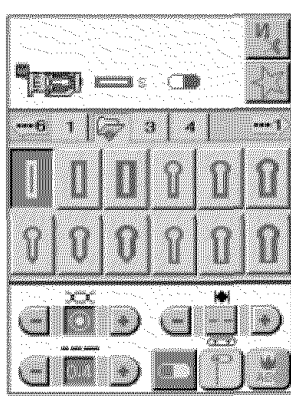
Stitch pattern to be selected

Same as the double bartacking/eyelet buttonholing

Presser foot to be selected

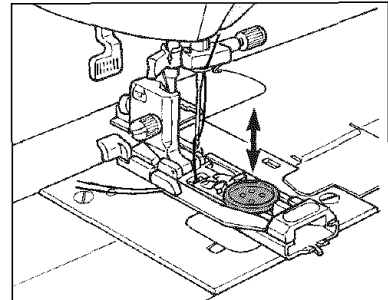
Buttonhole foot (E)

Needle thread and bobbin thread interlace with each other on right side of fabric to create a finished appearance that resembles a hand-sewn buttonhole.



Select buttonholing pattern and press pictogram. pictogram will be shown in reverse .

Sequence of buttonholing is same as standard buttonholes.



* For purl stitching, you may need to set thread tension slightly lower than that for standard buttonholes.

Automatic buttonholes

Corded buttonholes

Sewing buttonholes with cord inserted will prevent buttonhole from being enlarged and reinforce it. Lace yarn, button hole twist or like can be used as cord.

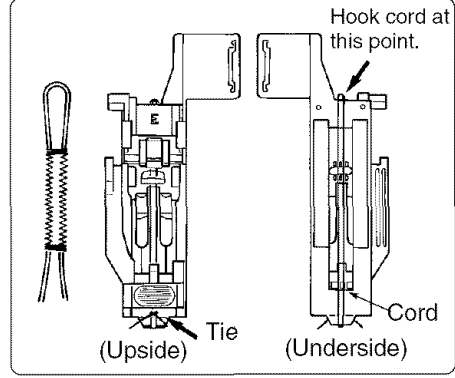
Stitch pattern to be selected

(Medium) (Large)

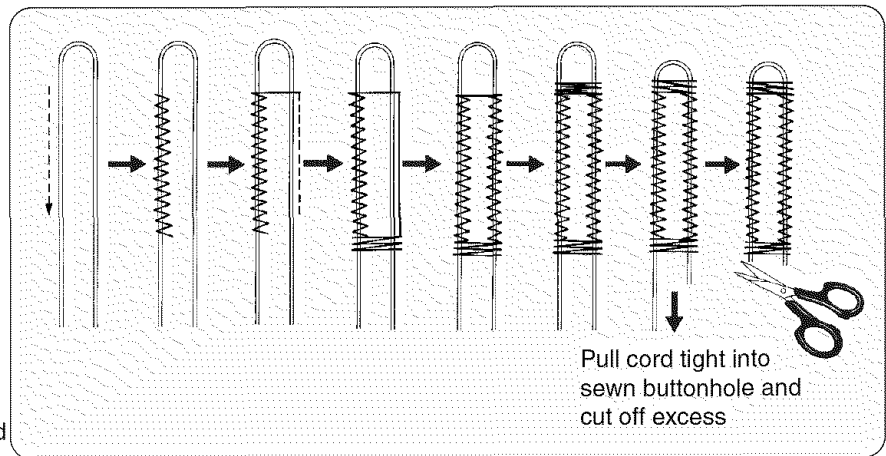
Presser foot to be selected

Buttonhole foot (E)

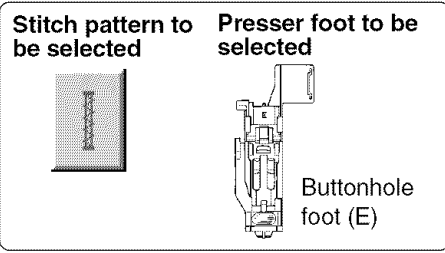
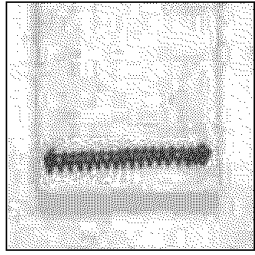
Routing cord on buttonhole foot for sewing corded buttonholes.



Hook cord at top of underside of buttonhole foot and bring down both ends of the cord and hook them into the two slits at the lower end of the buttonhole foot. Make a knot with both ends of cord on the front side of the foot. Carefully attach buttonhole foot to the machine taking care not to displace the cord.



Bartacking



Bartacking is used to reinforce part of seam that is likely to ravel.

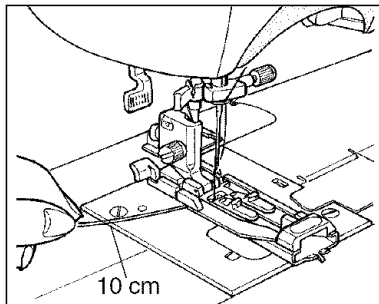
* Bartacking length is determined by pressing reverse stitch button. Maximum number of bartacking stitches is 20. When maximum number of stitches is reached, machine will automatically stop and travel back in opposite direction.

* In the case where buttonhole foot is not leveled at multi-layered portion of fabric, use a filler cloth or cardboard.

Example of application

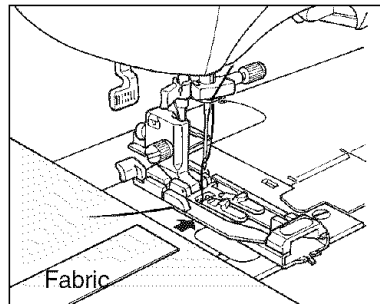


1 Draw thread to side of buttonhole foot.

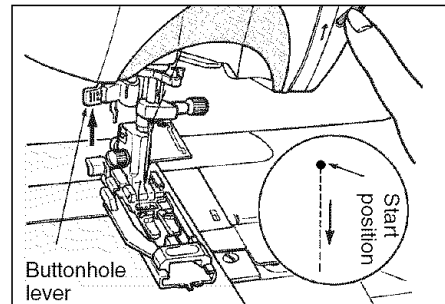


Pass needle thread through and under buttonhole foot.

2 Place fabric under buttonhole foot.

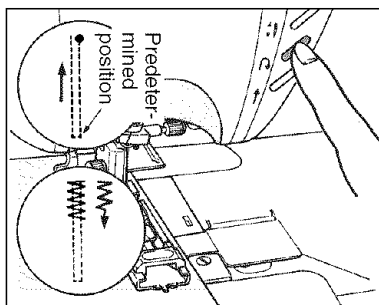


3 Start machine with buttonhole lever raised.



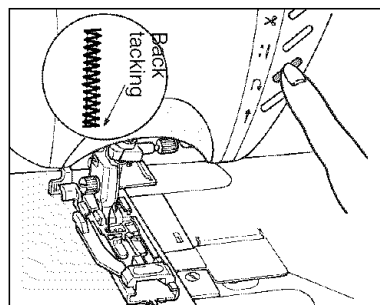
A press on start/stop button will cause machine to start straight stitching.

4 When predetermined position is reached, press reverse stitch button.



Machine sews straight stitches until sewing starting position is reached. Then, machine automatically returns while sewing zigzag stitches until predetermined position is reached.

5 When predetermined position is reached, press reverse stitch button.



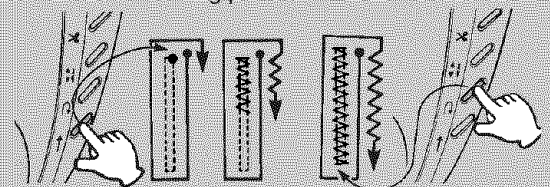
Machine stops after sewing bartacks.

To continuously sew bartacks of same length:

First bartacking length is stored in memory.

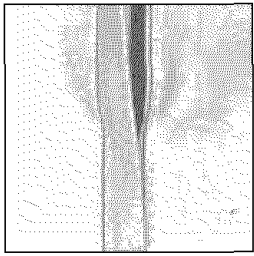
* Press start/stop button, change sewing direction when predetermined turn-about point is reached and return to the starting point.

* When seam end position is reached, press reverse stitch button.



* To change bartacking length that is stored in memory, re-select pattern.

Setting zipper to side placket of garment

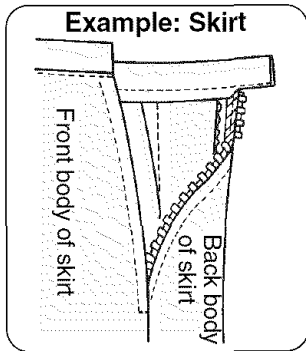


Stitch pattern to be selected

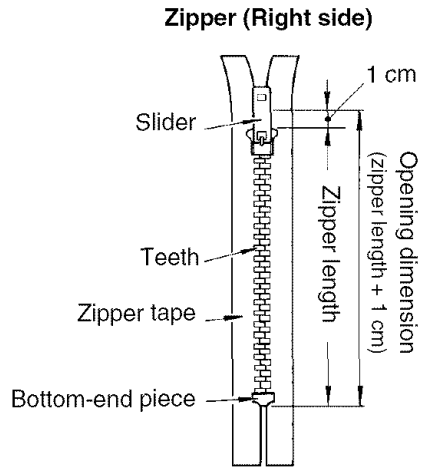
Presser foot to be selected

Zipper foot (B)

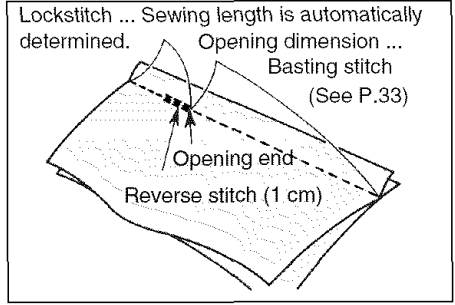
This stitch pattern is used for finishing opening of skirts, slacks and one-piece dresses.



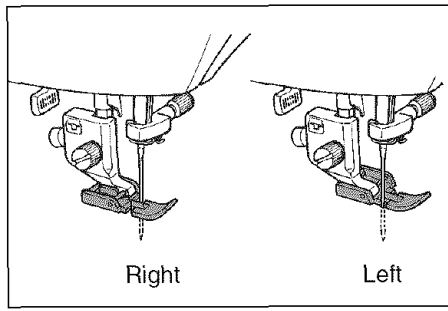
: Be sure to insert zipper with straight stitches using center stitch base line.



1 Begin insertion of zipper with standard presser foot (A).

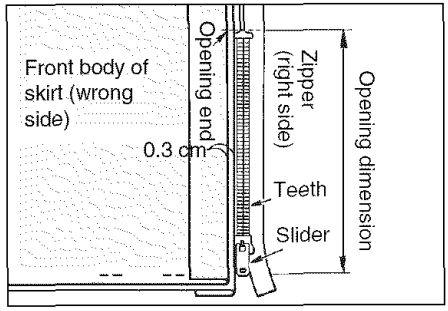


2 Attach zipper foot (B) to machine.



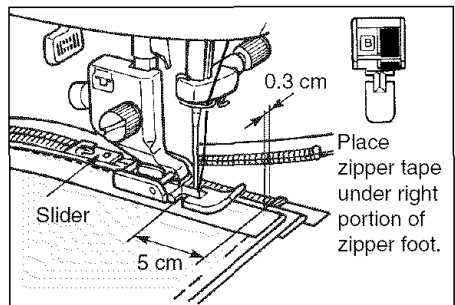
To sew left part of zipper, place zipper under right portion of zipper foot. To sew right part of zipper, place zipper under left portion of foot.

3 Open seam allowances.



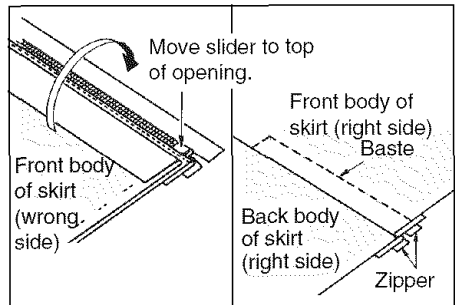
Open seam allowances so that seam allowance of back body of skirt extends out 0.3 cm from that of front body. Press with an iron to make a crease. Press crease accurately against side face of teeth.

4 Sew left part of zipper on seam allowance from bottom of opening to top.



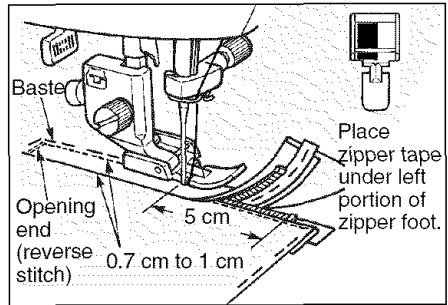
Sew zipper on back seam allowance at center of projection of 0.3 mm from bottom of opening. Stop sewing at a position that is approximately 5 cm from top of opening. Move slider to bottom of opening. Then, continue sewing until top end of opening is reached.

5 Turn over front body of skirt to show right side. Baste zipper tape, seam allowance and front fabric.



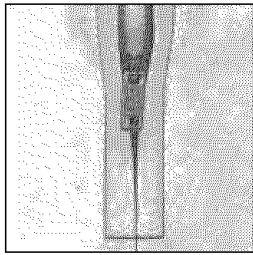
* Manually baste fabric and zipper tape.

6 Sew reverse stitches at bottom of opening. Now, sew right part of zipper to body.



After reverse stitching, fit left edge of zipper foot just against teeth. Sew zipper at a position approximately 0.7 to 1 cm away from seamline. Undo basted seam approximately 5 cm away from top end of opening and move slider to bottom of opening. Then sew remaining part of zipper.

Center zipper insertion



Stitch pattern to be selected

Presser foot to be selected

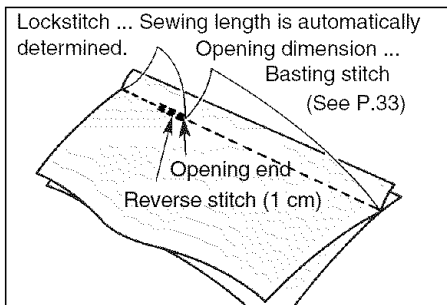
Zipper foot (B)

This stitch pattern represents zipper inserting method that is used for center front or center back of garments, bags, cushions and various kinds of covers.

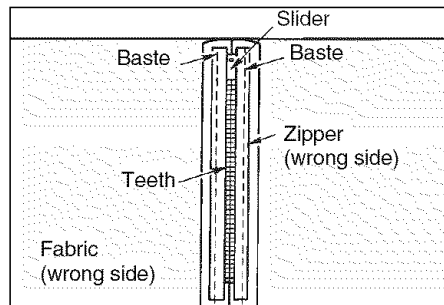


: Be sure to insert zipper with straight stitches using center stitch base line.

1 Begin installation of zipper with standard presser foot (A).

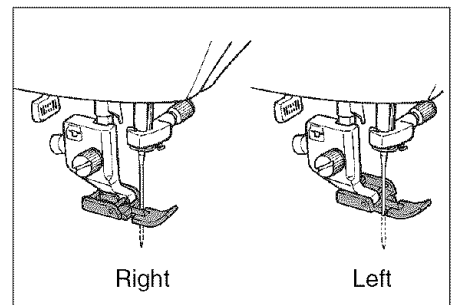


2 Baste zipper and garment body.



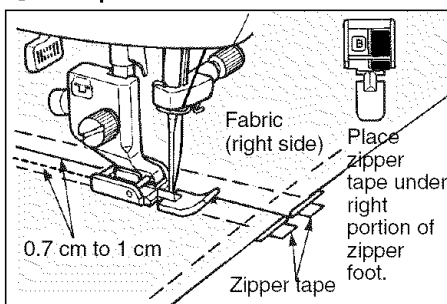
Open seam allowances. Aligning seamline and center of teeth of zipper and manually baste through zipper, seam allowance and front fabric. Tilt slider upward.

3 Attach the zipper foot (B) to machine.



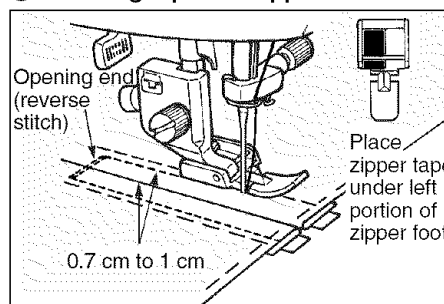
To sew left part of zipper, place zipper under right portion of zipper foot. To sew right part of zipper, place zipper under left portion of foot.

4 Sew left part of zipper on seam allowance from bottom of opening to top.



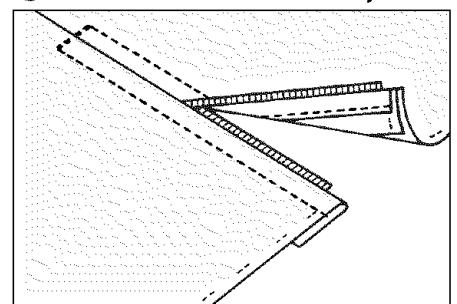
Sew zipper on seam allowance from bottom to top of opening at position that is 0.7 to 1 cm away from seamline.

5 Sew right part of zipper.

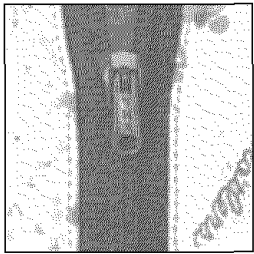



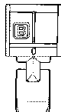
Reinforce bottom end of opening with reverse stitches. Then, sew right part of zipper on seam allowance from bottom to top of opening at position that is 0.7 to 1 cm away from seamline.

6 Remove basted stitches only.



Zipper insertion for small articles



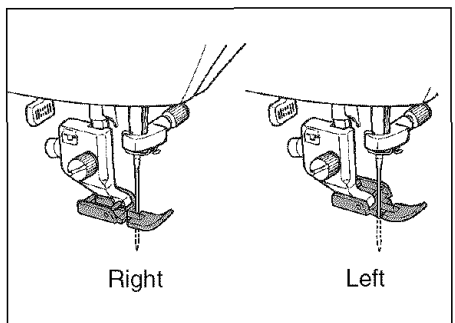
| | |
|---|--|
| Stitch pattern to be selected  | Presser foot to be selected  Zipper foot (B) |
|---|--|

With this stitch pattern, zipper tape appears outside. This zipper setting method is used for crafts and bags.



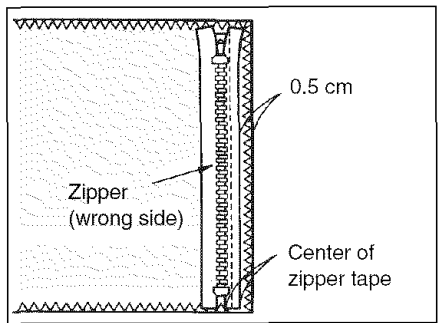
: Be sure to insert zipper with straight stitches using center stitch base line.

1 Attach zipper foot (B) to machine.



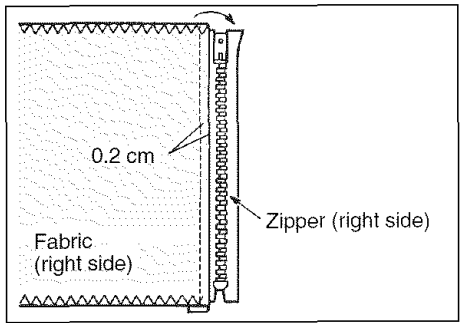
To sew left part of zipper, place zipper under right portion of zipper foot. To sew right part of zipper, place zipper under left portion of foot.

2



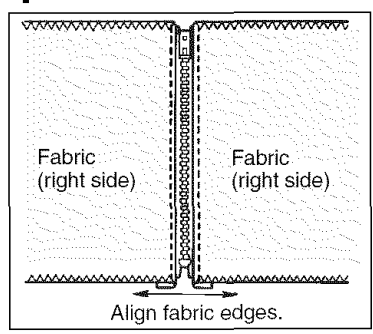
Place either side of zipper tape face down (or right side down) on right side of fabric 0.5 cm from edge of overcast edge of fabric. Then, sew at center of zipper tape.

3



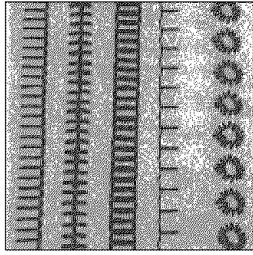
Turn sewn zipper so that its right side faces up. Top-stitch zipper in place 0.2 cm away from folded edge.

4



Sew other side of fabric in procedure same with 1 and 2.

Heirloom Sewing (Using Optional wing needle)



Stitch pattern to be selected

Presser foot to be selected

Decorative stitch foot (T)

Caution Make sure power/light switch is off before inserting needle.

1 Insert wing needle.

2 Use correct presser foot.

Decorative stitch foot (T)

3 **IMPORTANT** Automatic needle threader cannot be used.

4 Recommended Heirloom Patterns.

Press → [Stitch Pattern 1] [Stitch Pattern 2] [Stitch Pattern 3] [Stitch Pattern 4]

Press → [Stitch Pattern 5] → Press → [Stitch Pattern 6]

Decorative Topstitching

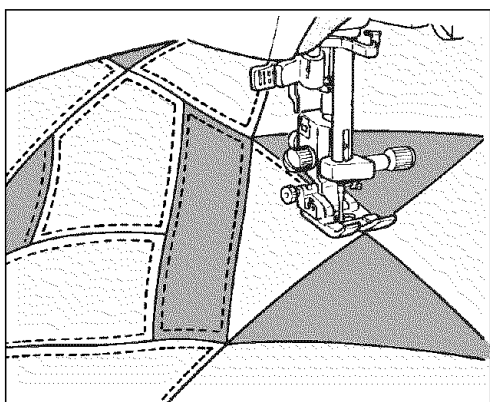
Stitch pattern to be selected

3 ↓ 4 ↓

Presser foot to be selected

Standard presser foot (A)

There are 9 unique stitch patterns which are perfect for decorative topstitching and quilting. These patterns are designed to look like hand sewing.




How to Set Machine for Running Quilt Pattern

- 1** Select Running Stitch Pattern.
- 2** Thread bobbin with desired topstitching color.
- 3** Manually thread machine with invisible or light weight thread which matches fabric and will not show.
- 4** Adjust stitch length if desired.
- 5** Sew.

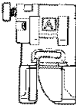
Shirring and gathering



Stitch pattern to be selected



Presser foot to be selected



Standard presser foot (A)

Shirring: For sleeve caps or waistbands
 Gathering: For sleeve cuff or yoke.

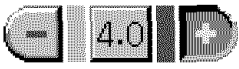
1 Change stitch length.

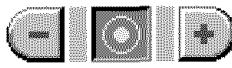
2 Decrease needle thread tension.

3 Thread length at beginning and end shall be approximately 5 cm. Sew two parallel seams.

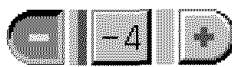
4 Draw bobbin thread of seam to shirr fabric.

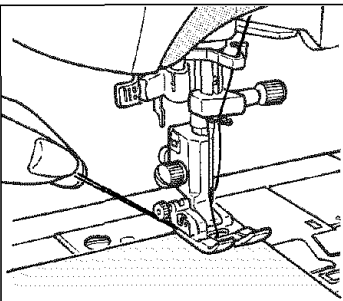
Gathering

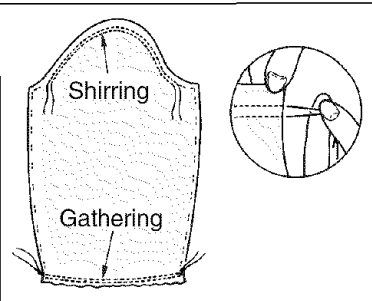




↓



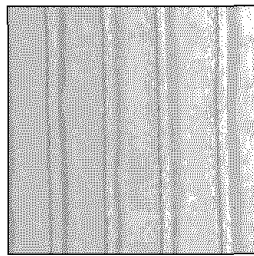





Set stitch length at 3.0 to 5.0 for gathering and set it at 1.5 to 2.0 for shirring.

At end of sewing, draw out fabric by 5 cm or more and press thread trimming button.

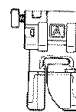
Pin tucks



Stitch pattern to be selected




Presser foot to be selected



Standard presser foot (A)

You can also sew pin tucks with a twin-needle. Twin needle tucks are always even as they are formed by two parallel needles. Increasing the tension will result in a more pronounced pin tuck.

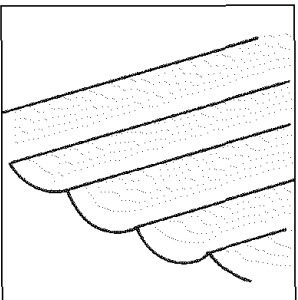


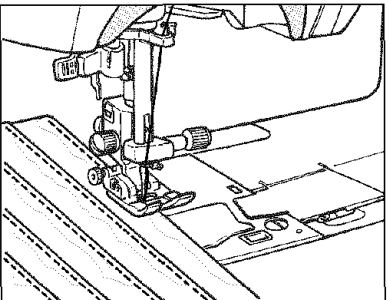
Pin tucks are decorative tucks used to embellish garments and crafts.

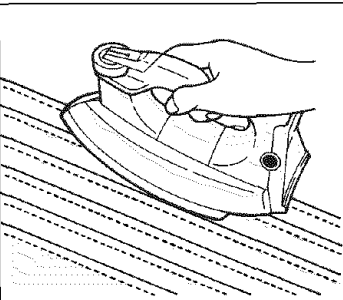
1 Using an iron, press folds in the fabric to create a crisp folded line for sewing.

2 Sew folds taking care not to stretch them.

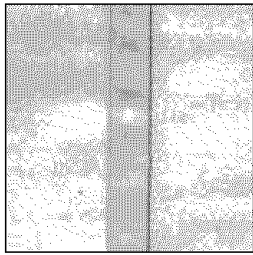
3 After finishing sewing, press pin tucks to one side.


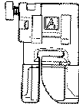




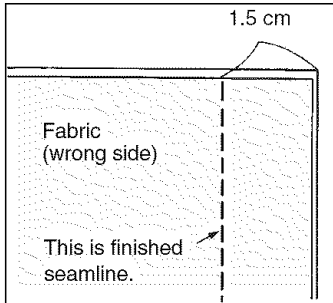
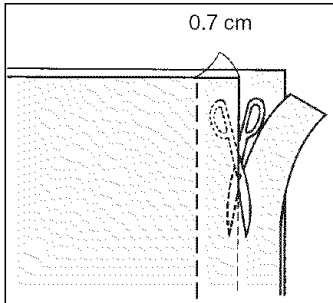
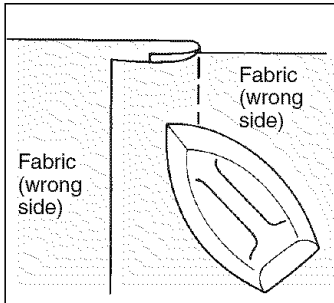
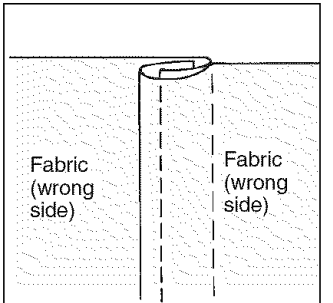


Flat Fell Seams

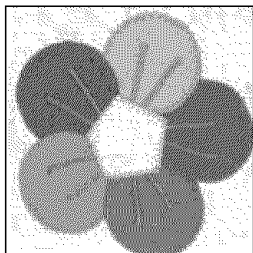



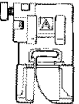
| | |
|---|--|
| Stitch pattern to be selected  | Presser foot to be selected  Standard presser foot (A) |
|---|--|

This stitch pattern is used to finish fabric edges neatly with increased durability.

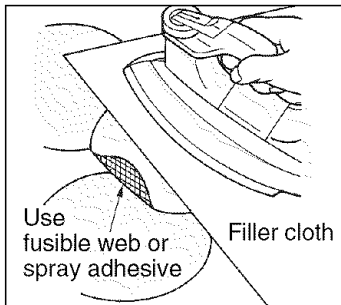
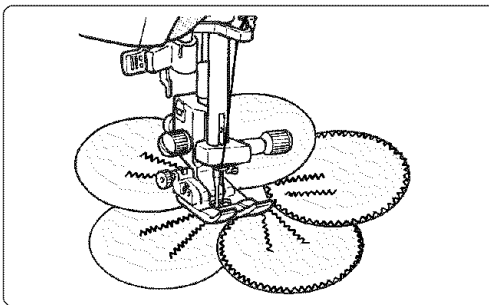
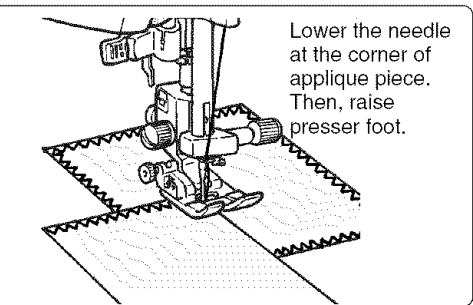
| | | | |
|---|---|---|---|
| <p>1 With right sides together, align edges of two pieces of fabric and sew them together.</p>  | <p>2 Cut away one half of seam allowance. (On one layer only).</p>  | <p>3 Open fabrics at seamline and press the uncut seam allowance over the cut seam allowance.</p>  | <p>4 Fold wider seam allowance around the narrow seam allowance and sew along folded edge.</p>  |
|---|---|---|---|

Applique



| | |
|---|--|
| Stitch pattern to be selected  | Presser foot to be selected  Standard presser foot (A) |
|---|--|

Commercially available applique pieces or those of your own making can be easily attached with increased durability.

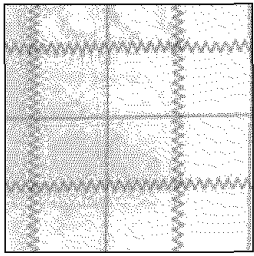
| | | |
|--|---|---|
| <p>1 Secure applique fabrics on fabric.</p>  | <p>2</p>  | <p>Lower the needle at the corner of applique piece. Then, raise presser foot.</p>  |
|--|---|---|

Adhere applique pieces with fusible web, spray adhesive or baste them on the fabric. Then, place a press cloth over applique pieces and lightly press with an iron.

Sew edges of applique pieces following procedure similar to those of overcasting. At beginning and end of seam, press reverse stitch switch to perform back tacking. For applique pieces with sharp curves, decrease zigzag width.

To sew a sharp curve or to change sewing direction, raise presser foot with needle lowered in applique piece edge.

Quilting



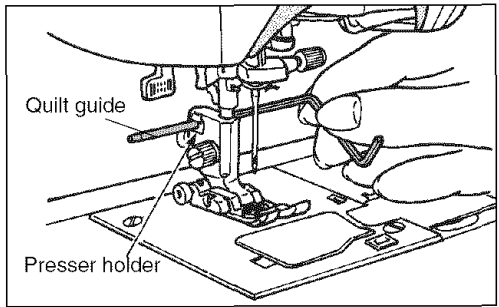
Stitch pattern to be selected

Presser foot to be selected

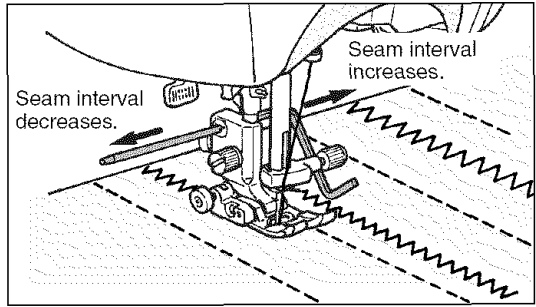
Standard presser foot (A)

Two piles of fabric are stitched together with batting placed between layers.

1 Insert quilt guide into hole in presser holder.

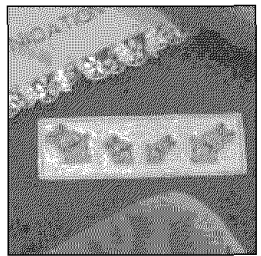


2 Sew a row of stitching on the fabric. Place the quilt guide on the first row of stitching and use it as a guide to stitch subsequent rows.



Lateral interval between seams can be adjusted as desired with ease.

Sideway feed (four-direction sewing)



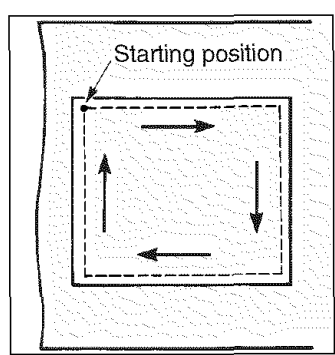
Stitch pattern to be selected

Presser foot to be selected

Decorative stitch foot (T)

Straight stitch Zigzag stitch

These straight and ZigZag stitch patterns are useful for sewing sideways, forward and backward without pivoting the fabric or raising the presser foot.

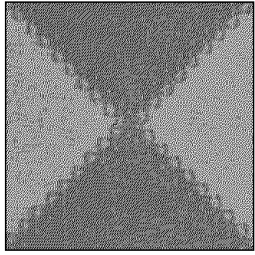


(Example: Straight stitch)

Determine a starting position.

- (1) Press picto to sew straight stitches until nearest corner is reached. Then, stop machine.
- (2) Press picto to continue sewing.
- (3) Then, press picto to continue sewing.
- (4) Finally, press picto to continue sewing until starting position is reached.

Patch work



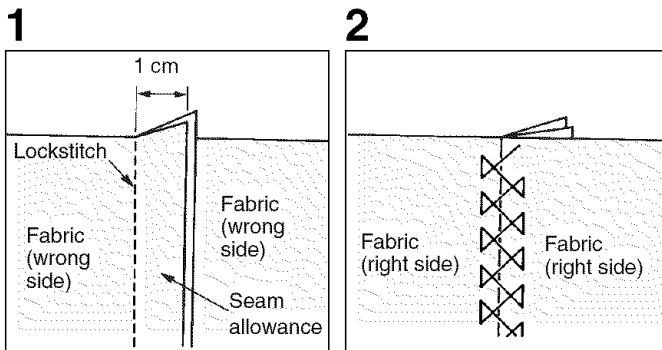
Stitch pattern to be selected

Presser foot to be selected

Standard presser foot (A)

With pattern stitches, fabrics can be joined together. This stitch technique is useful to join small pieces of fabric to make small articles or interior ornaments.

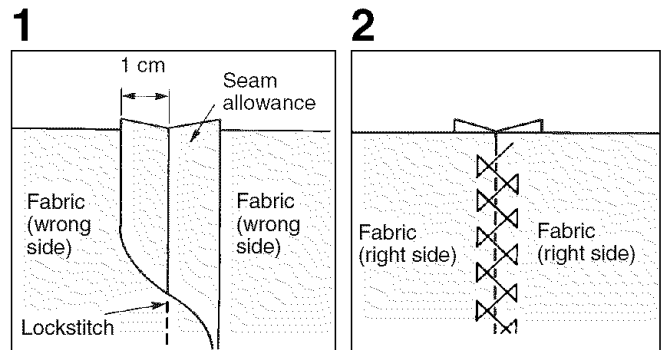
Overlapping patch



1 Place two pieces of fabric right sides together and sew using a straight stitch. Press seam allowances to one side.

2 Sew selected pattern centering over seam line.

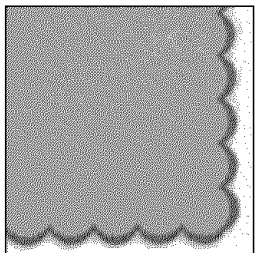
Open patch



1 Place two pieces of fabric right sides together and sew using a straight stitch. Press seam allowances open.

2 Sew selected pattern stitch on right side to extend over both pieces of fabric centering seamline.

Scallop stitch



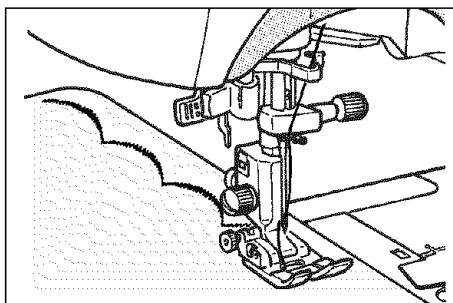
This stitch pattern is used to decorate edges.

Stitch pattern to be selected

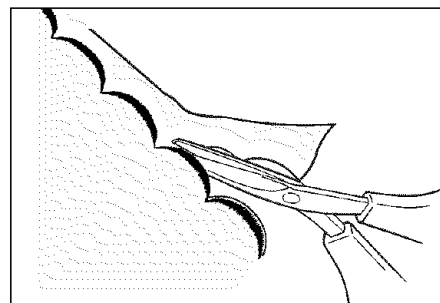
Presser foot to be selected

Decorative stitch foot (T)

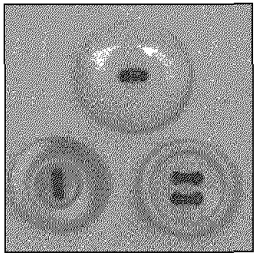
1 Place strips of tear-away type stabilizer under fabric edge. Sew scallop stitches close to the edge.

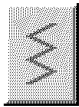
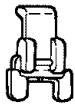


2 Tear away the excess stabilizer and trim outer edge of scallops taking care not to cut into the stitching.

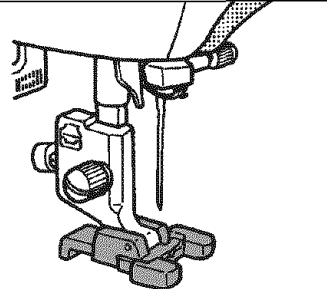
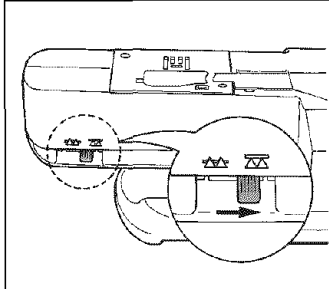
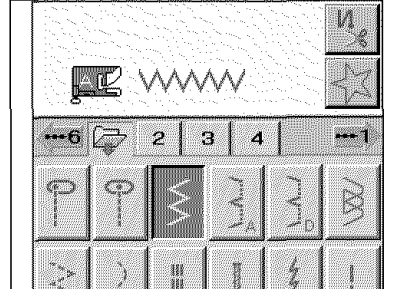


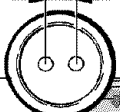
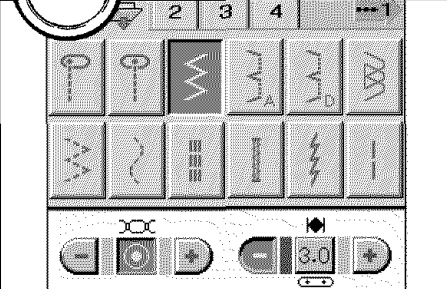
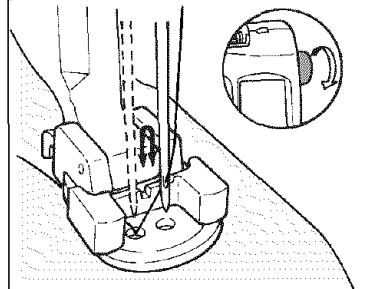
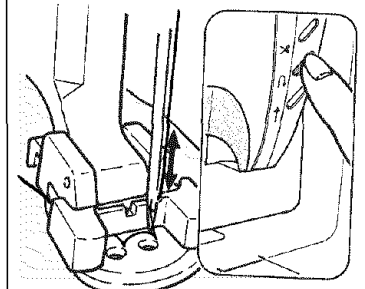
Button Sewing Foot



| | |
|--|--|
| <p>Stitch pattern to be selected</p>  | <p>Presser foot to be selected</p>  <p>Button sewing foot</p> |
|--|--|

The Zigzag stitch is used to attach both 2 and 4-hole buttons. The button-sewing foot must be attached when sewing a button.

| | | |
|---|--|--|
| <p>1 Attach button-sewing foot.</p>  | <p>2 Lower feed dogs.</p>  | <p>3 Select zigzag stitch pattern.</p>  |
|---|--|--|

| | | |
|--|---|--|
| <p>4 Measure distance between holes in button to be sewn.</p>   | <p>5 Place fabric on machine, and place button under button sewing foot.</p>  | <p>6 Tack thread in place.</p>  |
|--|---|--|

Press stitch width buttons to match holes in button to be sewn.
NOTE: 3.0mm width will generally sew all size buttons.

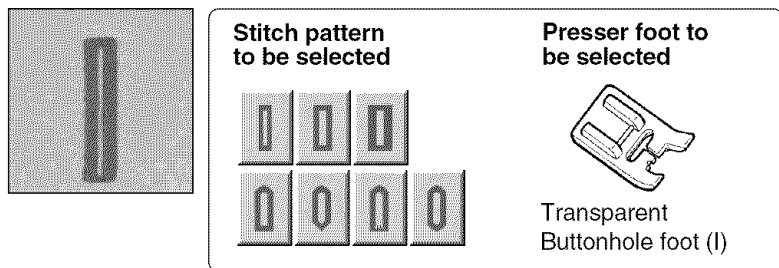
Turn handwheel by hand to confirm that needle exactly enters holes in button.

Press reverse button to sew 5 tacking stitches to secure.

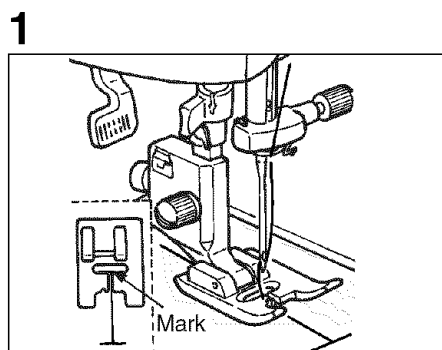
| | | |
|--|---|--|
| <p>7 Slowly press on speed controller allowing needle to sew 8 to 10 stitches.</p>  | <p>8 Press reverse button to sew 5 tacking stitches to secure.</p>  | <p>9 Press thread cutting button, trim thread.</p>  |
|--|---|--|

Caution: Due to irregular shape of some buttons button foot may not clamp securely. Do not attempt to sew these or buttons with a shank using sewing machine.

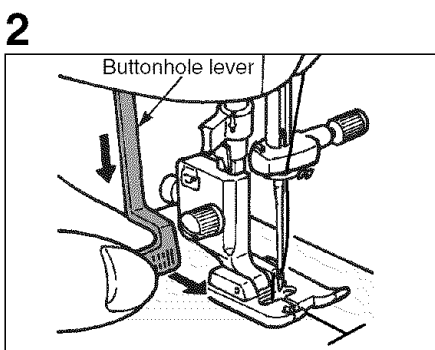
Manual buttonholes



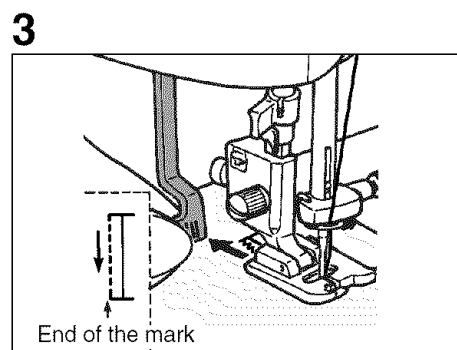
- * Automatic foot can make buttonholes up to 1 1/2: use transparent foot to create larger buttonholes.
- * To make ribbon casings
Other uses for Transparent foot I.
- * For french machine-sewing: mock whip and roll, pin-tucking and entredeux, are better controlled because there is a groove in bottom of foot.
- * For satin stitching.



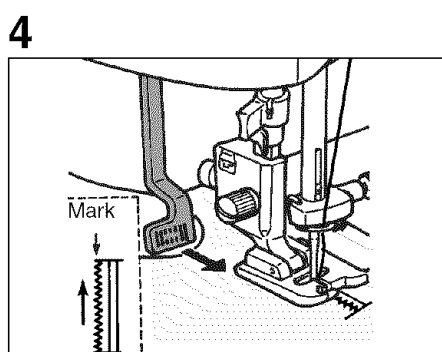
Mark material to indicate buttonhole placement.
Lower buttonhole foot so that mark is at center of needle hole in foot.



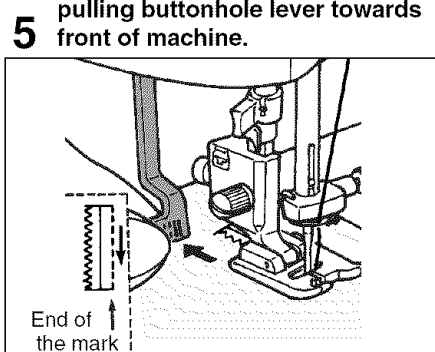
Lower buttonhole lever, slightly draw it toward you and press start button to start sewing.
* Machine will start straight stitching on left side of buttonhole.



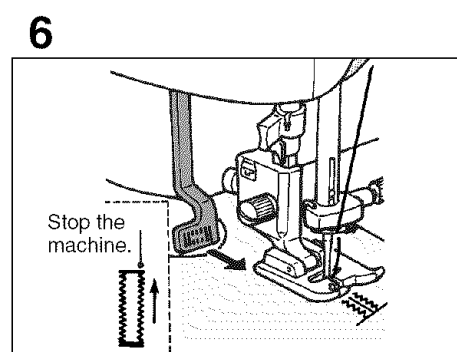
When needle reaches end of mark, slightly press buttonhole lever away from you.
* Machine will start zigzag stitching on left side of buttonhole in reverse direction.



When needle reaches beginning of mark, slightly draw buttonhole lever toward you.
* Machine will start straight stitching on right side of buttonhole.



When needle reaches end of mark, press buttonhole lever away from you.
* Machine will start zigzag stitching on right side of buttonhole in reverse direction.

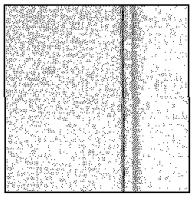




When needle reaches beginning of mark, slightly draw buttonhole lever toward you. Then, machine will perform bartacking and back tacking, then will stop.

Caution

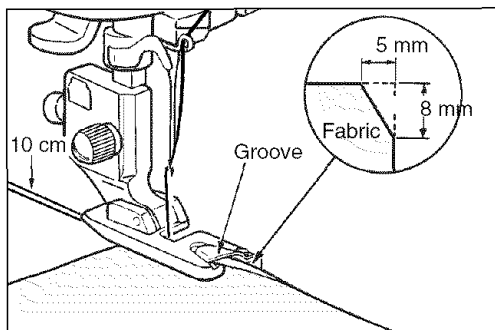
Take care not to allow fabric to come in contact with buttonhole lever. If buttonhole lever is pressed by mistake, operation mode will be changed to bartacking.

Rolled Hemming

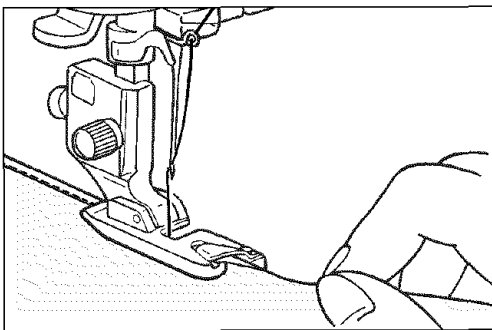


| | |
|---|--|
| <p>Stitch pattern to be selected</p>  | <p>Presser foot to be selected</p>  <p>Rolled hemming foot (F)</p> |
|---|--|

Rolled hemming is an edge finishing technique that rolls the fabric edge. It is used for finishing bottoms of shirts and blouses or finishing edges of frills or handkerchiefs.

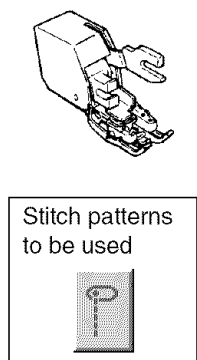


Cut away a corner of fabric in order to make work easier. Insert fabric into spiral groove in hemmer foot until needle position is reached.



Drawing ends of needle and bobbin threads, turn handwheel 3 or 4 turns by hand to guide fabric to hemmer foot.

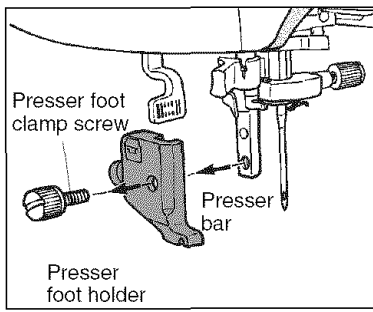
Even Feeding



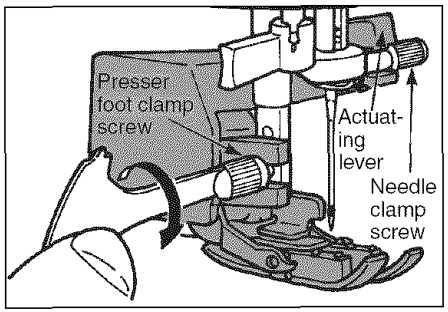
Use this attachment only for straight stitching (longitudinal feed).
 * Do not use attachment for lateral feed type straight stitching, zigzag stitching or pattern sewing.

This attachment is generally used for fabrics (such as knits, jersey, vinyl cloth, artificial leather and leather) that are difficult to be fed by sewing machine. It ensures smooth feed of fabric while preventing fabric slippage to achieve neatly finished seams. It is also used for quilting.

- 1 Remove presser foot holder.**
- 2 Attach even feed foot to machine.**



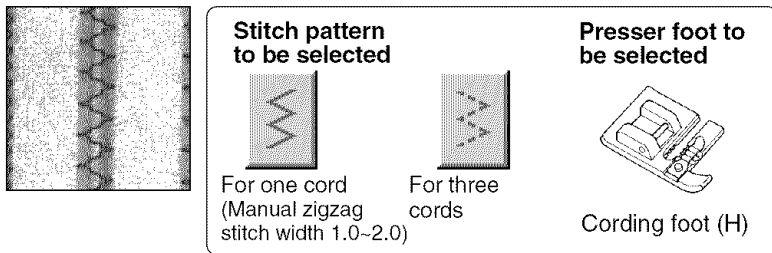
Lift presser bar, remove presser foot clamp screw and remove presser foot holder.



Put forked section of actuating lever around needle clamp, attach to presser bar and securely tighten presser foot clamp screw.

* Sew at low to medium sewing speed.

Attaching Cords



* Gathering and shirring

Place pearl cotton into center of foot and zig-zag over it. Secure one end of pearl cotton and pull other end to gather. Use same method with elastic threads to create shirring.

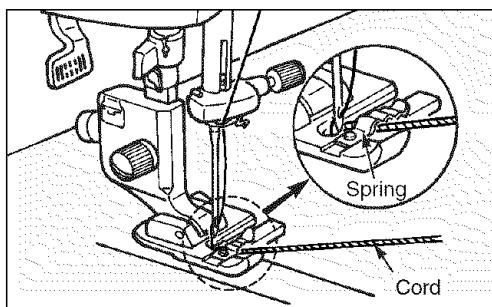
* Decorative shirring

Experiment with decorative threads, like ribbon thread or metallics. Place cording into slots and stitch using multi-stitch zigzag.

* Applying trims.

For sewing one cord

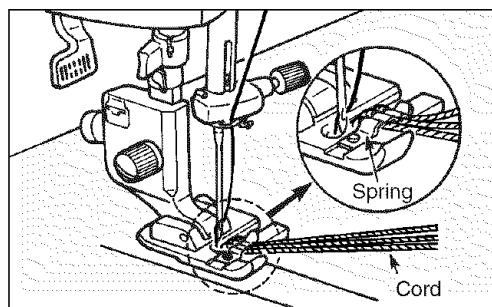
Pass cord along left edge of cording foot and pass top of cord through the groove located on sole of foot. Then, lower cording foot.



Secure cord with zigzag stitches of zigzag width (2). Press reverse stitch button at beginning and end of sewing to perform back taking. Pull cord onto wrong side of fabric, make a knot and trim.

For sewing three cords

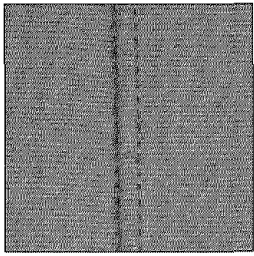
Pass all cords in cording foot and insert top ends of cords through grooves located on sole of foot. Then, lower cording foot.



Secure cords with Multistitch zigzag stitches. As in the case of one cord sewing, perform back taking and draw cords onto wrong side of fabric, make a knot and cut cords properly.

* For sewing two pieces of cord, pass cords through right and left grooves located on sole of cording foot.

Twin Needle Sewing



Twin needle sewing produces two parallel line of closely-spaced stitching.

Stitch pattern to be selected

Adjust stitch width of 4.0mm or less.

Size is or .

Presser foot to be selected

Standard presser foot (A)

A quick method to set the proper width for twin needle sewing is to simply press the twin needle pictogram before selecting the desired stitch patterns.

Caution: * If sewing with twin needle, never press the elongate or position key (because needle will hit the presser foot).
 * Sew at low or medium sewing speed.
 * Do not use reverse stitch.

NOTE: * Automatic needle threader and automatic thread cutter cannot be used.
 * Two colors sewing cannot be performed with twinneedle sewing.
IMPORTANT: Use only Singer branded twin needle style #2025.

- * With machine turned off, insert twin needle into needle clamp.
- * Place the first spool of thread on the left Thread Exchanger Spool Pin A. Place the second spool of thread on the right Thread Exchanger Spool Pin B.
- * Thread the machine manually with Spool A threaded through the left needle and Spool B through the right needle.

- 1 Attaching twin needle.**
- 2 Use correct presser foot.**

 Use standard presser foot (A) or decorative stitch foot (T).
- 3 Set spools in place.**
- 4 Thread machine.**

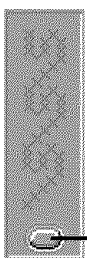
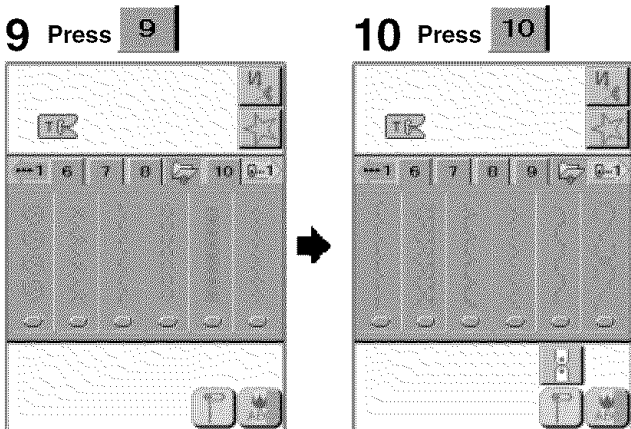
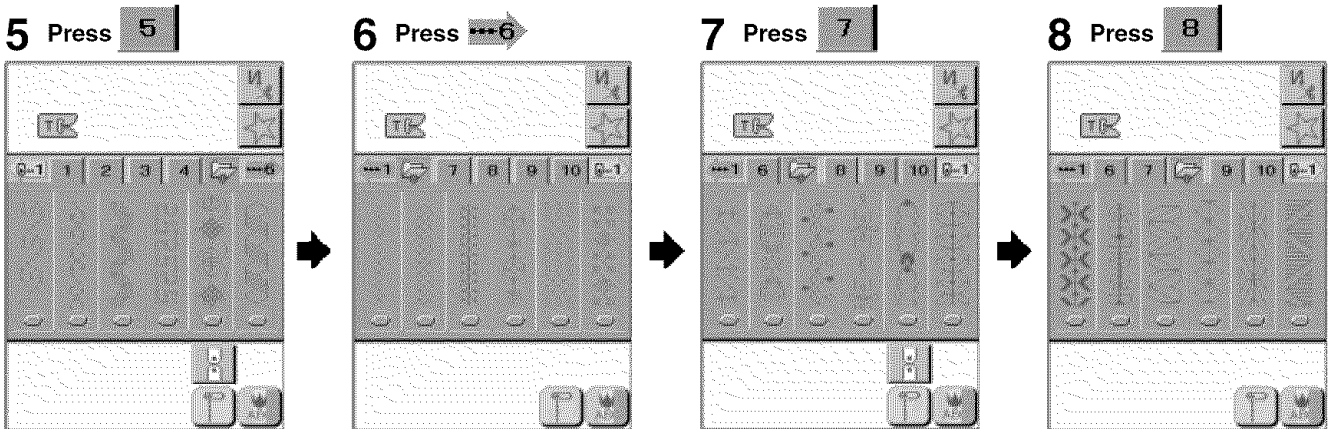
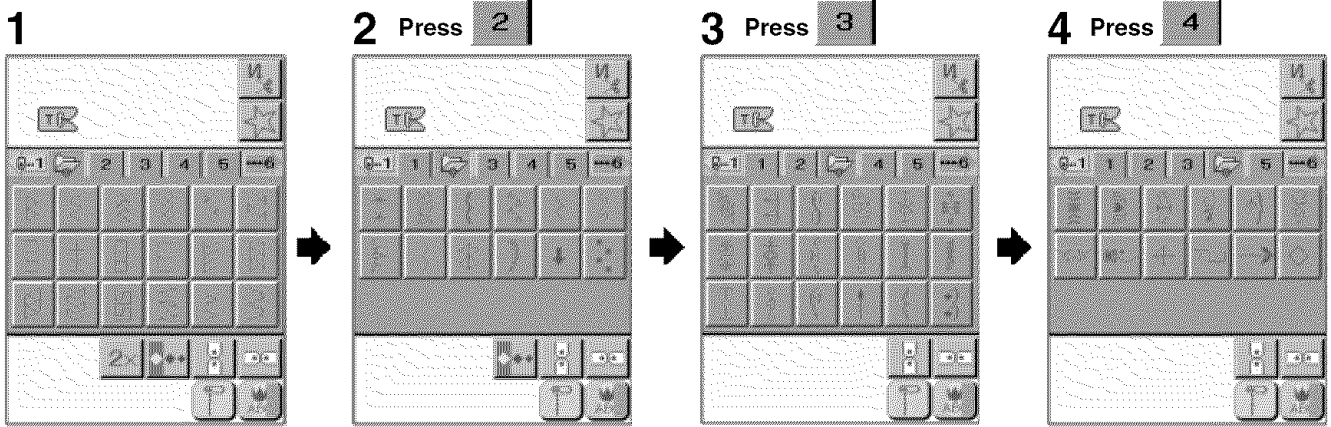
How to Select Continuous / Functional Patterns (color coded rose)

Presser foot to be selected









Decorative stitch foot (T)

How to activate patterns on LCD screen


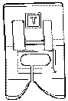
Press picto.



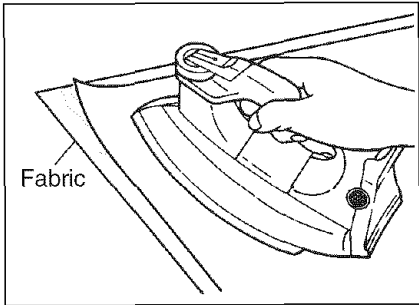
Note: When the Stitch Pattern Pictogram displays a "Targeting Oval", to select pattern press gently on the oval only.

| | |
|---|--|
|  | Used to vertically invert a pattern used for continuous pattern sewing. |
|  | Used to mirror a pattern used for continuous pattern sewing. |
|  | This pictogram is used to select straight stitch with left stitch base. (Also used to return to Utility Pattern Screen.) |
|  | Used to activate additional Pattern Groups and Alphabet / Numerics Screens. |
|  | Pattern elongate pictogram. Only available on Screen 1. |
|  | Enlarge size pictogram |
|  | Regular size pictogram |
|  | Reduce size pictogram |

How to Select Large (X-Y Feed) Patterns (color coded orange)

| | |
|---|---|
| <p>Stitch pattern to be selected</p>  <p>Press to select a desired pattern.</p> | <p>Presser foot to be selected</p>  <p>Decorative stitch foot (T)</p> |
|---|---|

Preparation before sewing



For best results always use a stabilizer on the wrong side of the fabric and always conduct a trial sew first.

Fuse iron-on stabilizer to wrong side of fabric. (Iron temperature should be set "low" to "medium")

Selecting pattern screens


1 Press **2**


2 Press **2**



3 Press **3**

4 Press **4**

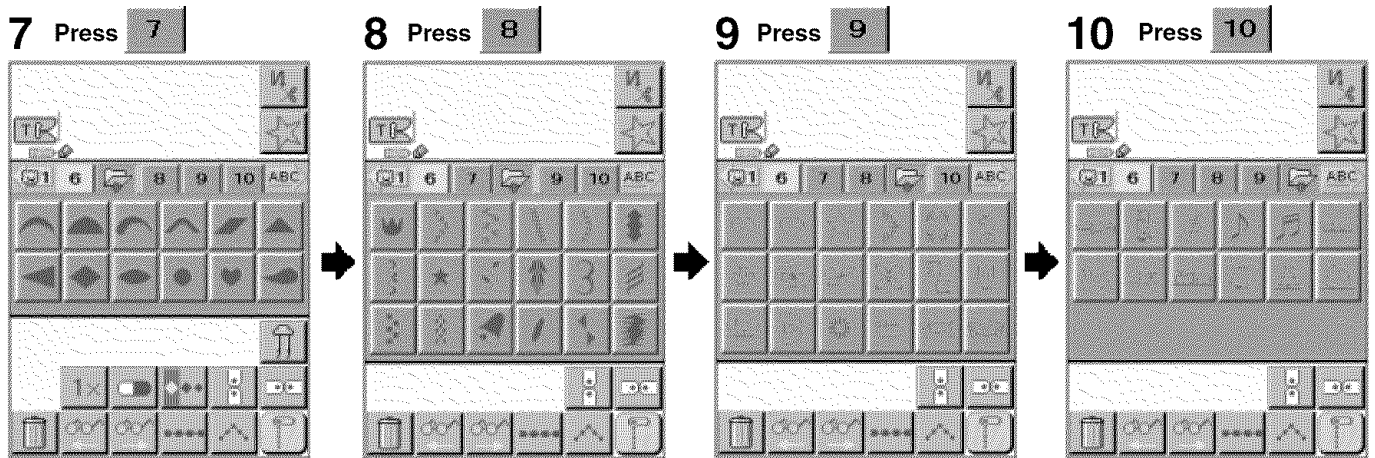
5 Press **5**

6 Press 

Press  pictogram:

* For patterns with  displayed, select pattern by gently pressing 

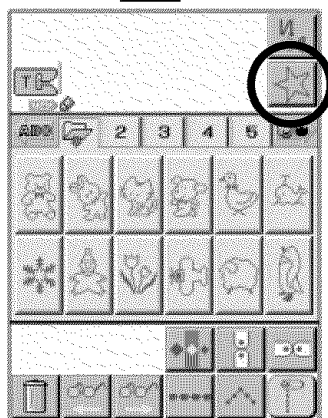
How to Select Small Decorative Patterns



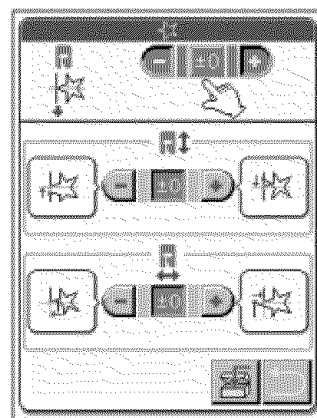
Balancing Machine with Trial Sewing Pattern

Some Patterns may need to be balanced depending on the thickness and texture of the fabric. Additionally, the type of interfacing/stabilizer and thread being used may also effect the balance and appearance of a pattern. It is recommended that a test sample be sewn using the same fabric, interfacing/stablizer and thread before sewing on the final garment. Your sewing machine provides you with a Trial Sewing Pattern that has been specifically designed for the purpose of balancing the sewing machine to the selected fabric, thread, etc conditions. Follow the steps below to balance your sewing machine.

1 Press  pictogram.

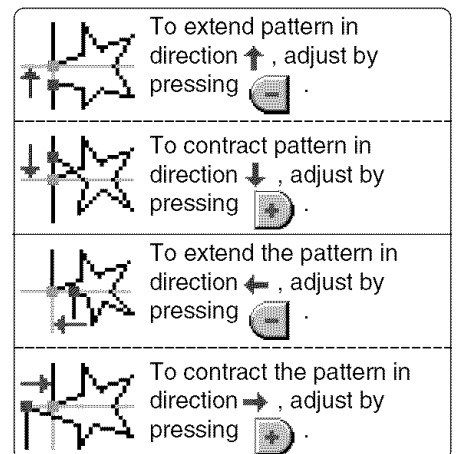
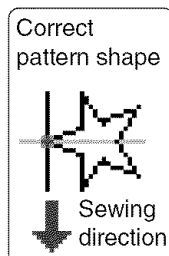



2




3 Start sewing machine.

4 Adjust pattern using    according to finished shape of pattern produced by trial sewing.

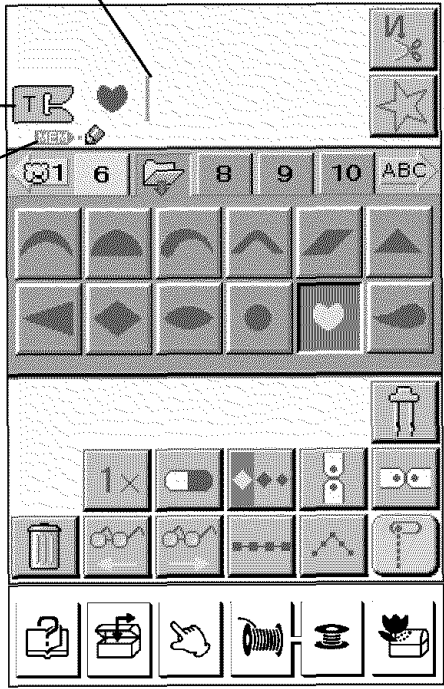


5 After completion of adjustment, press  pictogram to put your setting into memory.


How to Modify Patterns

Cursor: Pattern next to this line can be edited, deleted or modified. To add a new pattern between two existing patterns, move cursor to pattern inserting position using  pictogram and select pattern to be added.

Presser foot to be selected
Decorative stitch foot (T)



Automatic tie off & thread trimming
Balancing Pattern




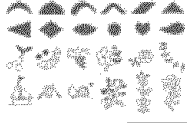




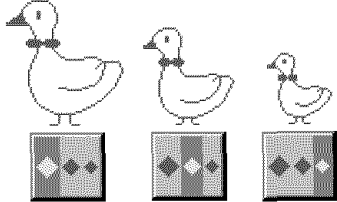




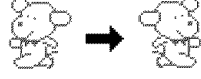


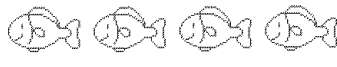




 will be shown in reverse once selected.

Memory indication
Pattern will be automatically stored in memory simply by selecting it. Dot will be added as a new pattern is stored in memory to indicate the current number of patterns stored in memory. (Max: 120)



Screen
Touch desired pattern on the LCD Screen. The selected pattern will appear on the top of the screen. Once selected, the pattern can be sewn.

Operation keys






Function of Pictograms shown on screen

| Pictogram on screen | Pattern that can be sewn | Indication on screen |
|--|---|---|
|  |  | |
|  | Indicates pattern that can be sewn in two different colors.  |  |
|  | Indicates pattern that can be sewn.  |  |
| |  | |
|  | Example)  |  |
|  | Example)  |  |
|  |  |  |
|  |  |  |

Function of operation keys

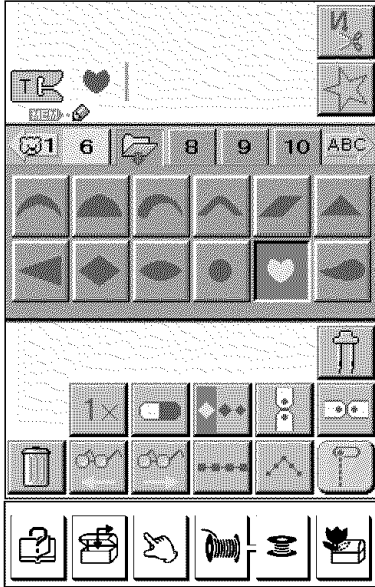
| Operation keys | Function |
|---|--|
|  | This key is used to store a selected pattern in memory. |
|  | This key is used to activate screen of thread tension and stitch length. |

Additional Pictograms and their functions

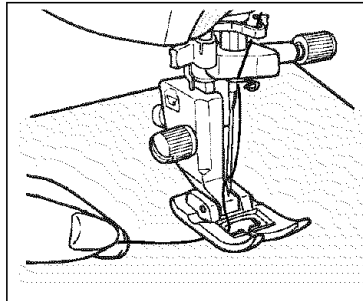
| | |
|--|---|
|  | Used for balancing and trial sewing. (See page 54.) |
|  | Used to clear patterns stored in memory. Pressing it will clear patterns stored in memory from latest one to earliest one. When key is held for 3 seconds or more, all patterns stored in memory will be totally cleared. |
|   | Used to check patterns stored in memory. |
|  | Used to return to utility pattern screen. (Straight stitching with left stitch base line will be selected.) |

How to select and sew patterns:

- 1** Select a pattern by gently pressing the desired pattern on the screen.

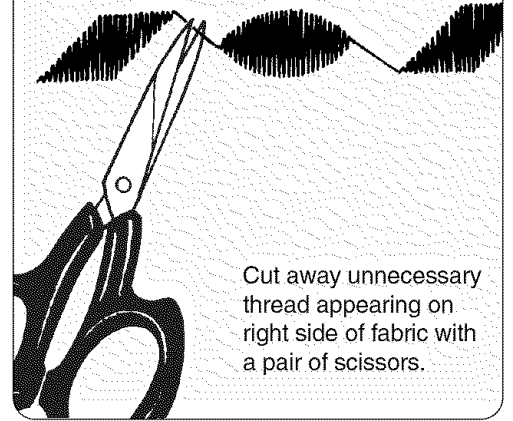


- 2** Place fabric under presser foot and start machine.




Machine will automatically stop when pattern or memorized sequence of patterns is completed.

How to cut cross-over stitch

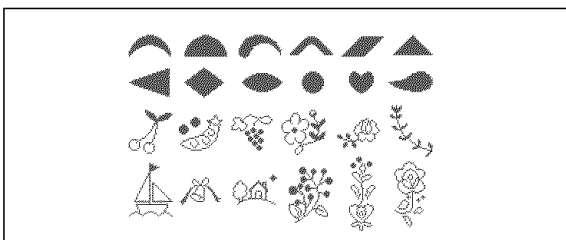


Cut away unnecessary thread appearing on right side of fabric with a pair of scissors.


2-color pattern sewing

Select a pattern from those illustrated below and use needle thread and bobbin thread that are different in color. Press  pictogram and start machine. Bobbin thread will appear on right side of fabric to produce a 2-color pattern.

- * Combination with other pattern is not possible.
- * When other pattern is selected, 2-color setting is released.




Mirror pattern sewing

1. Select a pattern.
2. Press  pictogram.
3. Start machine.

Example)





Inverted pattern sewing

1. Select a pattern.
2. Press  pictogram.
3. Start machine.

Example)



Continuous pattern sewing


1. Select a pattern.
 2. Press  pictogram.
 3. Start machine.
 4. Machine will sew same pattern in repetition until you stop it.
- * To complete last pattern, again press  pictogram when machine has started sewing it. The machine will complete the pattern and will stop.

Example)



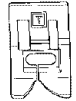
How to Select Alphabet Patterns (Color coded blue)

Stitch pattern to be selected

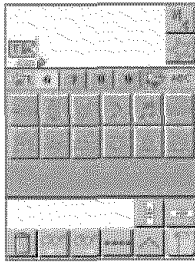


Press pictogram


Presser foot to be selected

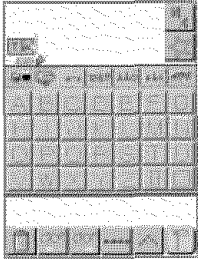


Decorative stitch foot (T)

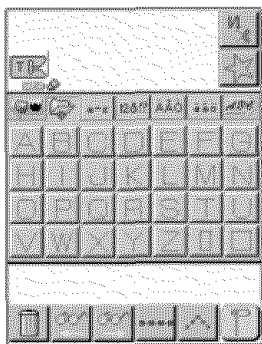



Press

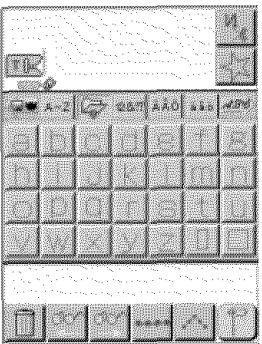





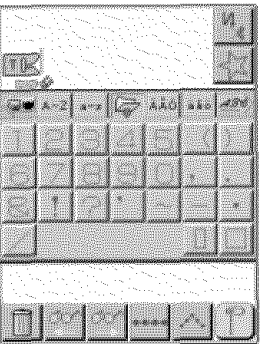
1




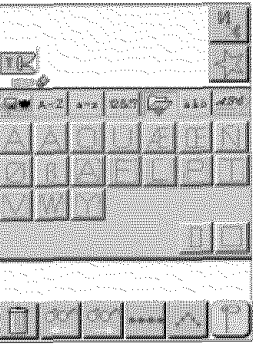
2 Press 




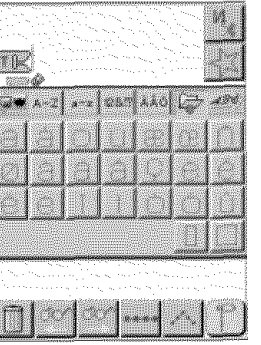
3 Press 




4 Press 

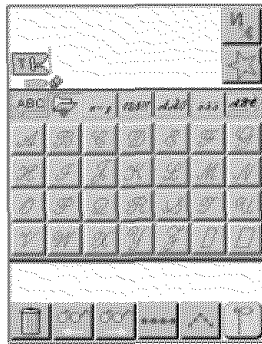



5 Press 

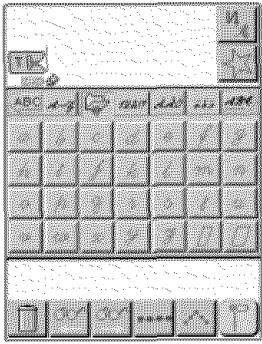



Press  picto

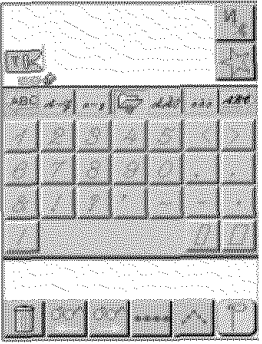
6




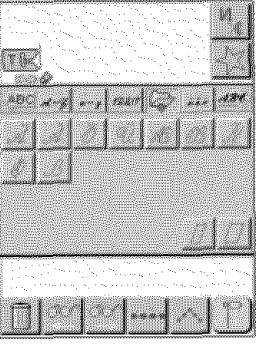
7 Press 




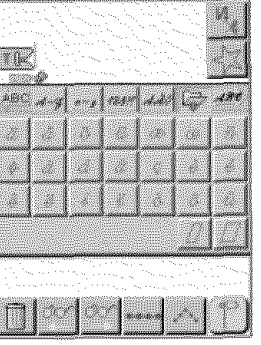
8 Press 




9 Press 

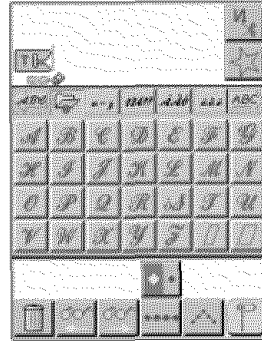



10 Press 

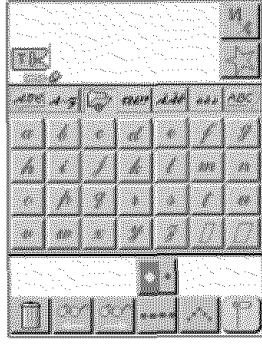



Press  picto

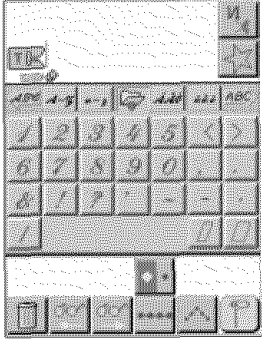
11




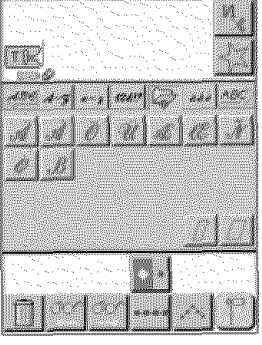
12 Press 




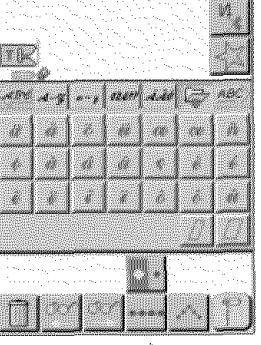
13 Press 




14 Press 

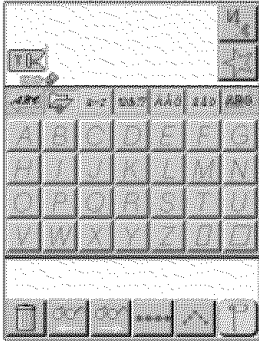


15 Press 

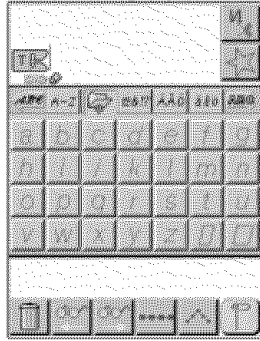


Press  picto

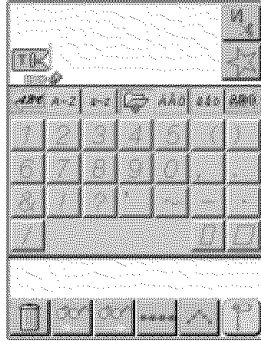
16



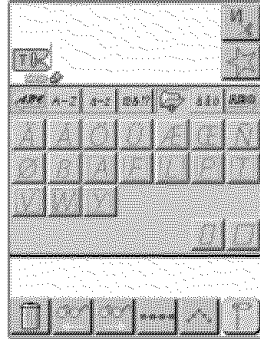
17 Press a~z



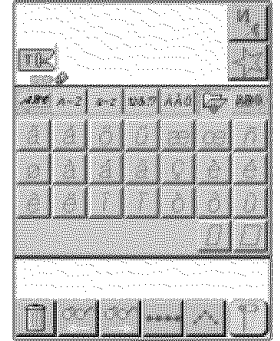
18 Press 12&17



19 Press AA0

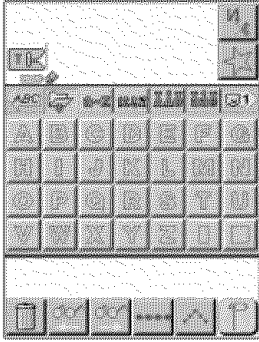


20 Press a a 0

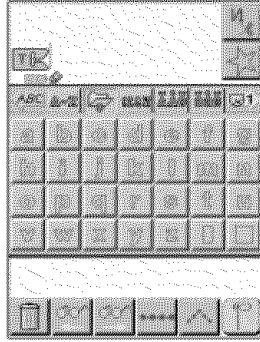


Press ABC picto

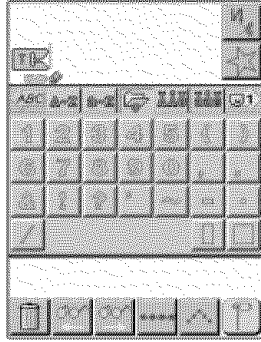
21



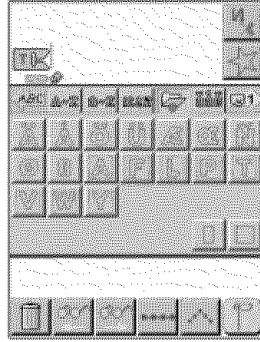
22 Press 3~Z



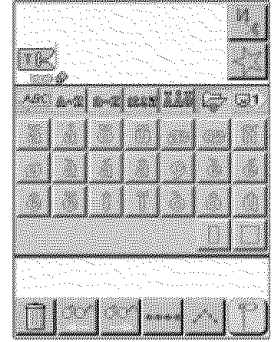
23 Press 12&17



24 Press AA0



25 Press 3 0 0





Example: Combination Pattern and Alphabet

HAPPY 🎂 BIRTHDAY

| | | | | | |
|--|---|--|-----------------------------|-------------------------------|------------------------------|
| | <p>"Letters surrounded with dotted box have reduced spacing and are used to reduce the spacing between kern combinations such as AW."</p> | | | <p>Enlarge Size Pictogram</p> | |
| | <p>One half Space Pictogram</p> | | <p>Full Space Pictogram</p> | | <p>Reduce Size Pictogram</p> |



Saving / Clearing / Opening patterns



When a pattern is shown on upper part of LCD screen, it will be stored in **MEM** (as many as 120 different patterns). However, they will be automatically cleared by turning power off. If you want to save pattern, press  Key. With this step of operation, you can file frequently used patterns.

As many as 120 different patterns (memory capacity) can be saved in one .






Do not turn off power to machine while Helpful Message indicating machine is filing or loading appears on LCD screen.

To save a pattern:

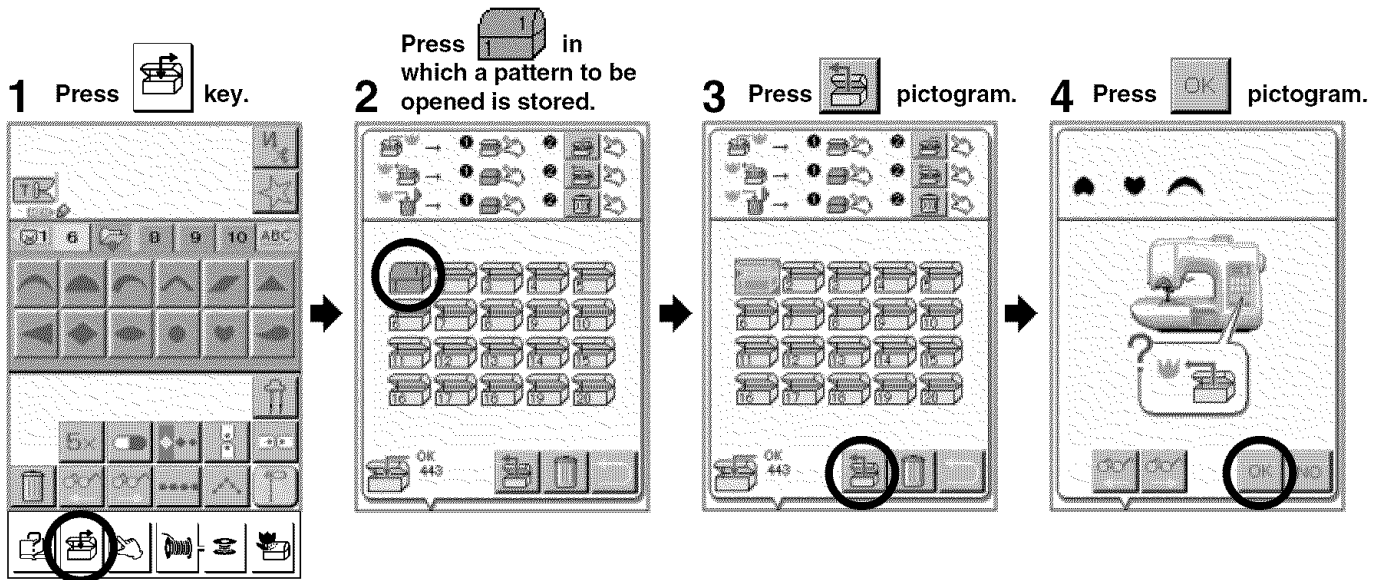
- 1 Press  key.
- 2 Press  in which a pattern is to be saved.

Remaining capacity of memory is indicated.
- 3 Press  pictogram.
- 4
- 5 Press  pictogram and screen will return to previous one.

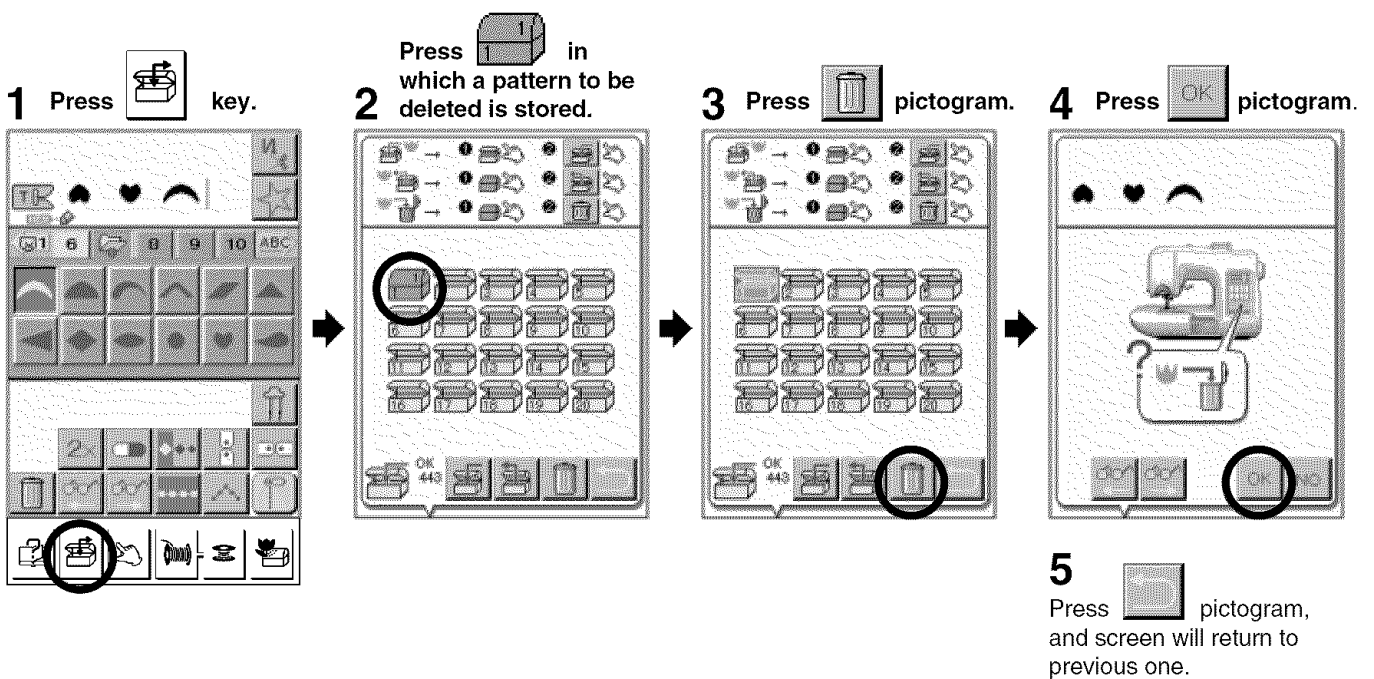
To overwrite a pattern:

- 1 Press  key.
- 2 Press  in which a pattern to be overwritten is stored.
- 3 Press  pictogram.
- 4 Press  pictogram.
- 5 Press  pictogram, and screen will return to previous one.

To open a saved pattern :



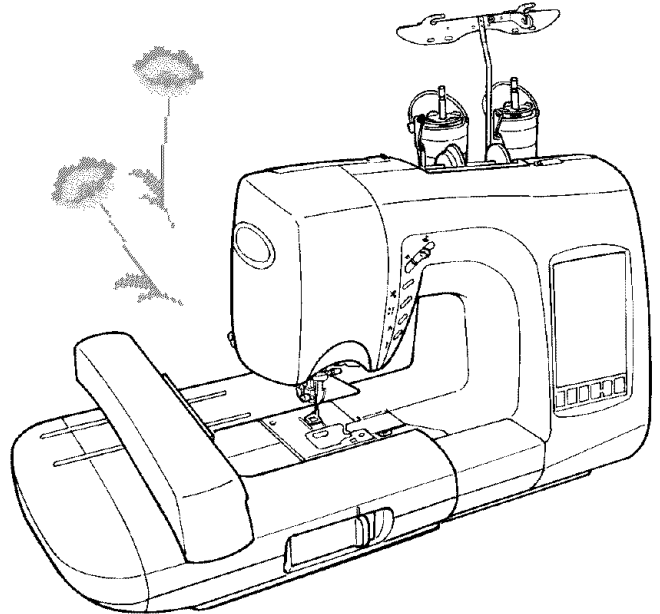
To delete a pattern:



Preparation for Embroidery

The Embroidery Side of your Computer Sewing Machine contains numerous embroidery patterns and characters stored in memory. In addition, Sew-Ware embroidery cards (separately available) may be used for embroidery. We hope you will enjoy embroidery with these patterns.

The following information relates to the process you need to fully understand to convert your Standard Sewing Machine to an Automatic Embroidery Machine.



Precautions about Embroidery Machine, Embroidery Unit and Sew-Ware Embroidery cards (optional)

CAUTION

* Do not carry your Computer Sewing Machine with Embroidery Unit installed as the Embroidery Unit may drop from Sewing Machine and break or cause an injury.

* Keep your hands, obstacles or other objects away from carriage of embroidery unit while embroidery frame is moving.

1. Be sure to turn power off to machine before attaching/removing embroidery unit to/from sewing machine.

2. Be sure to keep embroidery cards in original case for storage.

3. If you turn power off to machine during editing or sewing of embroidery, you only have about 10 minutes (Power Fail Function) to turn power back on and retain the data you were using. If you plan to be away from the machine for more than 10 minutes, temporarily save embroidery data so you may activate screen shown just before turning power off. (See page 96.)

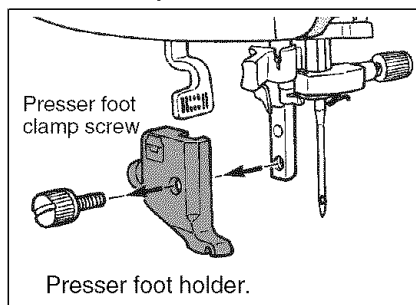
4. Embroidery frame comes in three different sizes. Carefully select an appropriate embroidery frame according to size and sewing position of pattern.

5. Embroidery designs stored in machine or available on optional Embroidery cards are intended for home use.

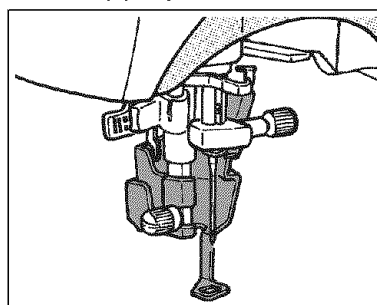
Copyright Laws strictly prohibit use of designs for business.

Attaching embroidery foot (J)

1 Turn off the power to machine.
Remove presser foot holder.



2 Attach embroidery presser foot (J) in position.

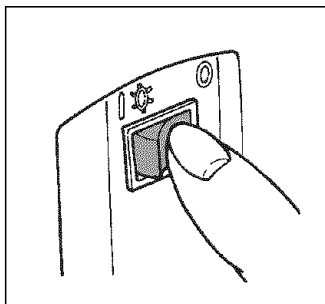


* If you cannot loosen screw by hand, use screwdriver supplied with unit.

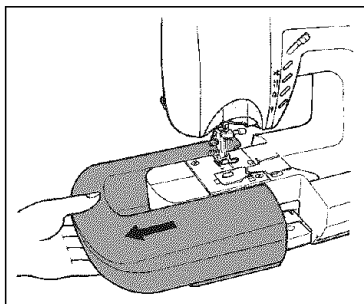
Attaching embroidery Unit to Machine

Caution: Do not attach Embroidery Unit by holding the carriage.

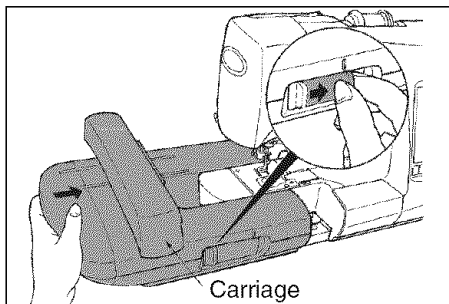
1 Turn power off.



2 Remove Auxiliary Bed.



3 Slide Embroidery Unit over machine arm. Press lever to rightmost position until it clicks.

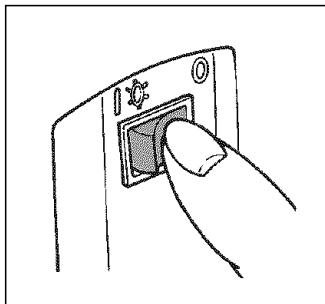


Place Computer Sewing Machine on a sturdy level surface. Attach Embroidery Unit by sliding it into place. If any gap exists between Embroidery Unit and Sewing Machine, embroidery patterns may be sewn incorrectly. Be sure to fully push Embroidery Unit onto sewing machine and then lock it in place.

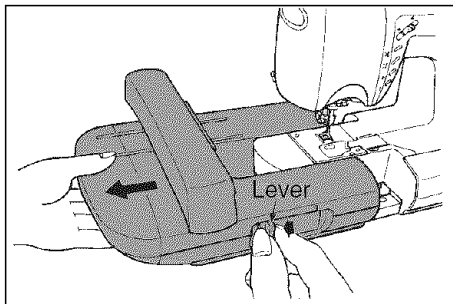
Removing Embroidery Unit

Caution: Do not remove Embroidery Unit by holding its carriage.

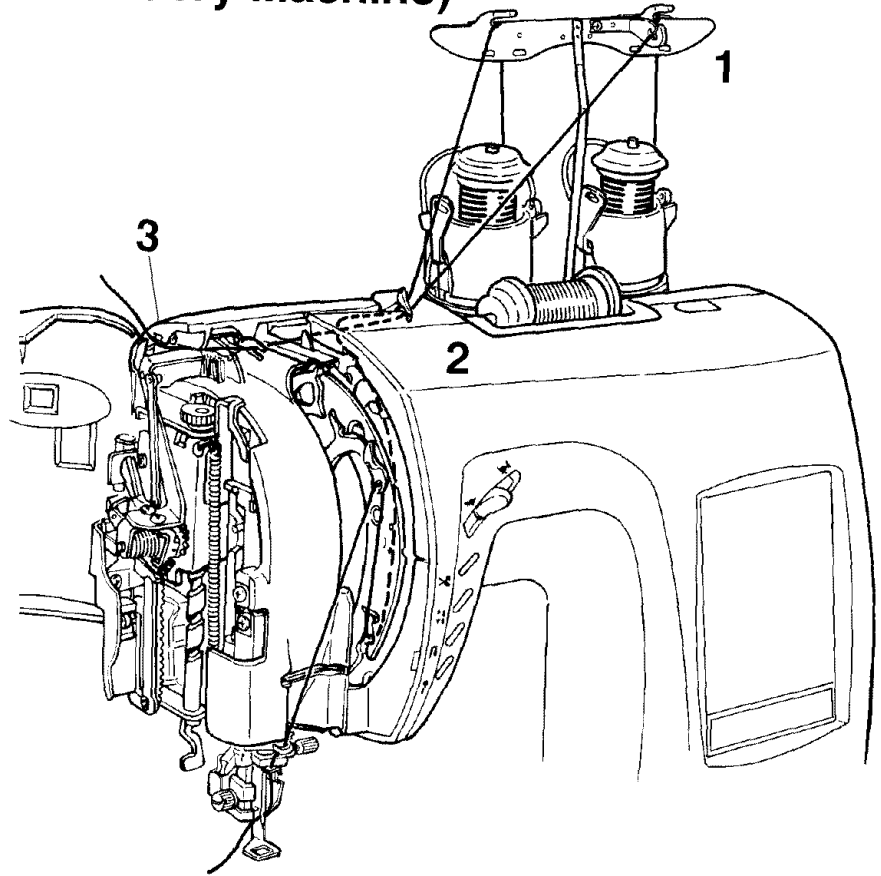
1 Turn power off.



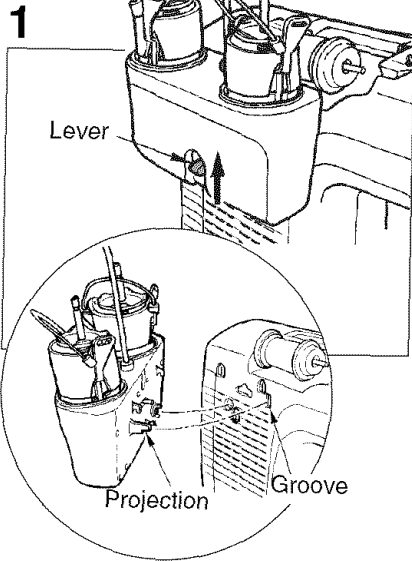
2 Slide the lever of the Embroidery Unit to the leftmost position. Then, slide Embroidery Unit to the left until it comes off sewing machine.



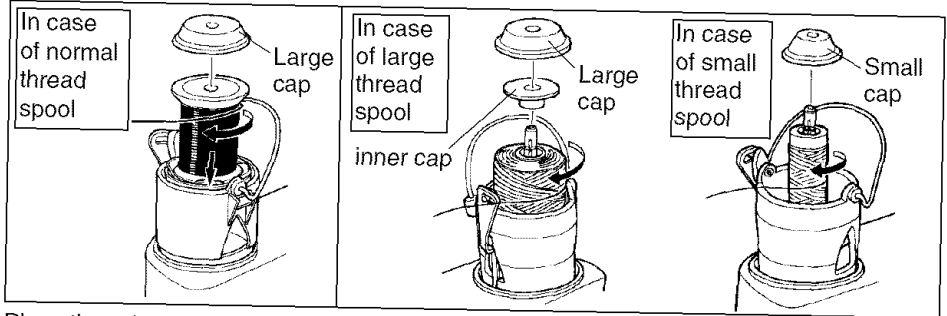
Thread Exchanger (Embroidery Machine)



Install Thread Exchanger.



2 Install Thread Spools.



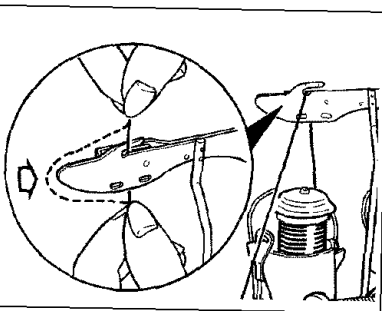
Place thread so thread wraps around spool in a clockwise direction and put large cap onto thread spool.

Place thread so thread wraps around spool in a clockwise direction and put large cap onto thread spool after installing inner cap.

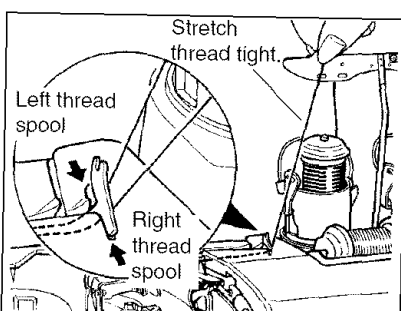
Place thread so thread wraps around spool in a clockwise direction and put small cap onto thread spool.

Thread sewing machine along groove, pull it in direction of arrow and cut it with thread cutter blade.

3 Stage thread for Semi or Fully Automatic Threading.

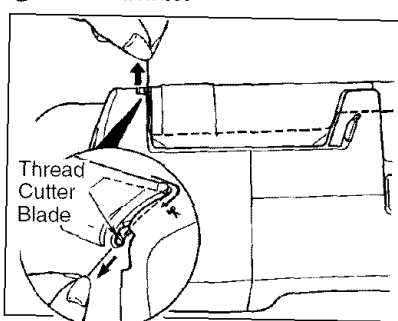


4

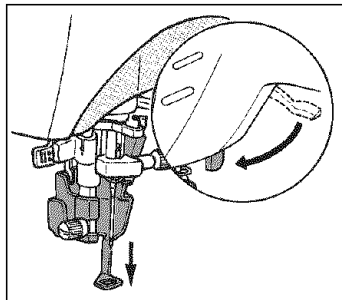


Holding thread with fingers, pull thread so as to stretch thread tight.

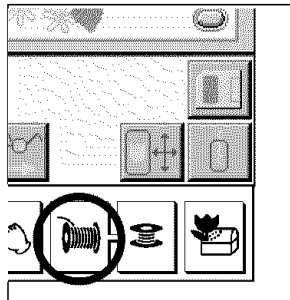
5



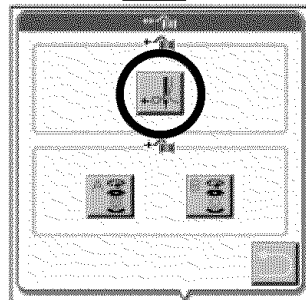
6 Lower presser foot lifter.



7 Press  key.



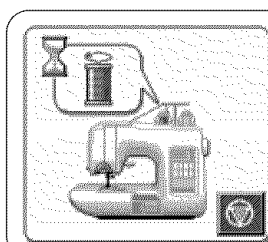
8 Press  pictogram.




9


Place next color (step) thread on Right Spool "B". Stage thread through Step 5 (including cutting the thread with Thread Cutter Blade.)


* Align mark on handwheel with mark on machine head.



If you want to stop rewinding manually press  pictogram.


For Semi-Automatic Operation

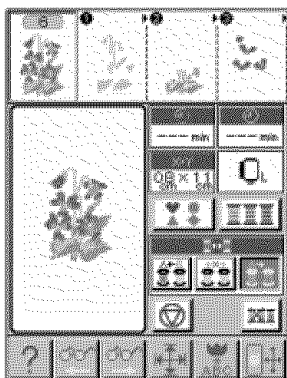
Press  pictogram to rewind thread to left thread spool.


Press  pictogram to rewind thread to right thread spool.

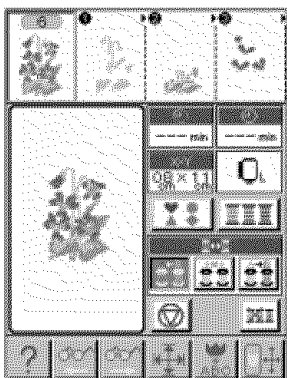
* Press rewind switch only after confirming that embroidery sewing step is fully complete and thread is cut.


Fully Automatic Thread Exchange

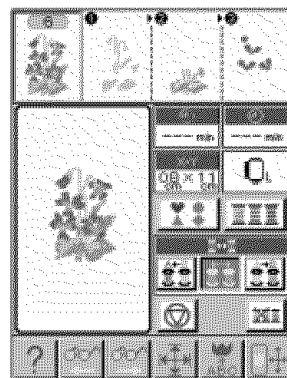
- At the time of threading both spools or before sewing is complete with first color "A", to achieve Fully Automatic Thread Exchange, you must press  pictogram.



- After machine has exchanged Spool "A" for Spool "B" and has proceeded to sew, remove used Spool A and replace it with next color (step). Stage thread through Step 5 and press  pictogram for Auto Thread Exchange.



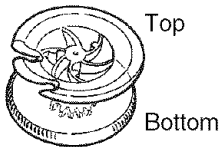
- If it is desired to manually perform threading, press  pictogram.



Endless Automatic Bobbin winding for embroidery

Automatic winding of bobbin with exclusive embroidery thread

Bobbin to be used



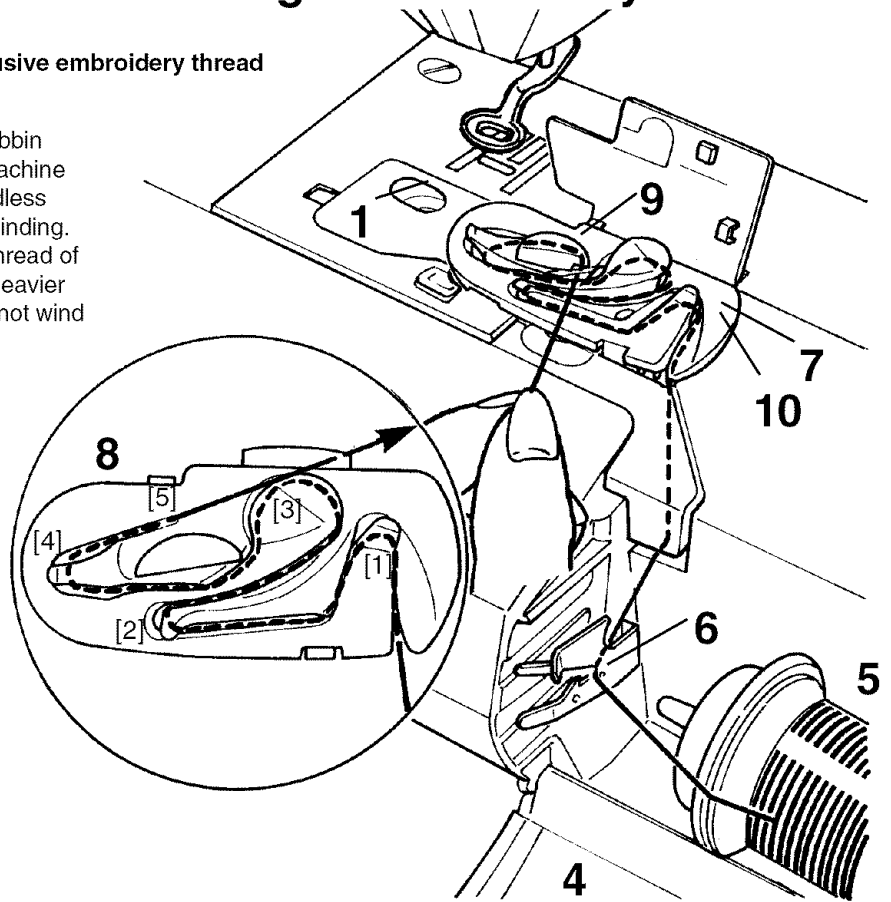
* Be sure to use bobbin illustrated. If not, machine cannot perform Endless automatic bobbin winding.
* Use Bobbin Fill Thread of 90 ~ 100 weight. Heavier weight thread may not wind correctly.

How the Endless Bobbin Works

*When the bobbin has run out of thread while machine is engaged in sewing an embroidery pattern, the machine will re-position the embroidery frame and will start the Endless Automatic Bobbin Winding Sequence.

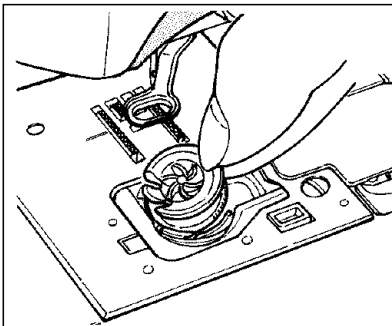
*After completion of automatic bobbin winding, the machine will automatically re-start sewing the embroidery pattern.

*As a manual option to the Endless Automatic Bobbin winding, you may choose to use standard bobbins and manually wind and insert them in your sewing machine. Refer to pages 119 & 120 for how to wind and insert bobbins automatically.

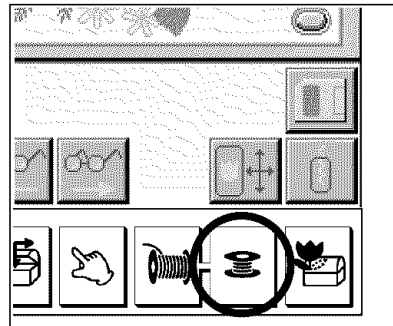


How to set up for Endless Bobbin Winding:

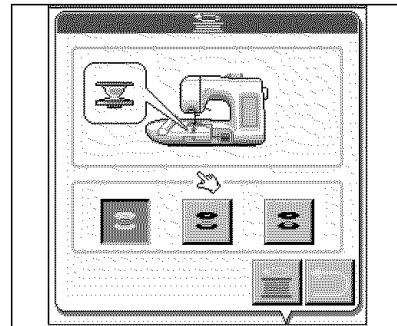
1 Load an empty bobbin and close bobbin case cover.



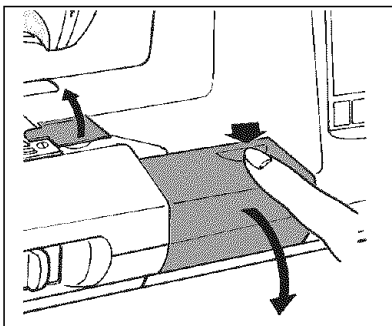
2 Press  key.



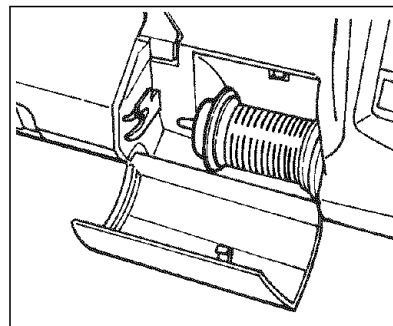
3 Select amount of thread to be wound on bobbin.



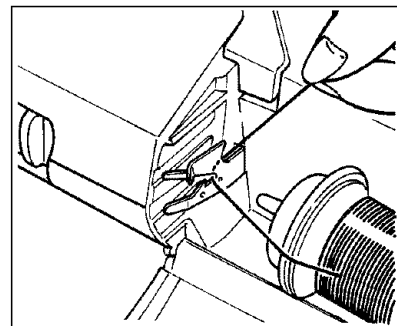
4 Open cover of Endless Bobbin loading compartment and cover of Automatic Bobbin winder.



5 Install a spool of Bobbin fill

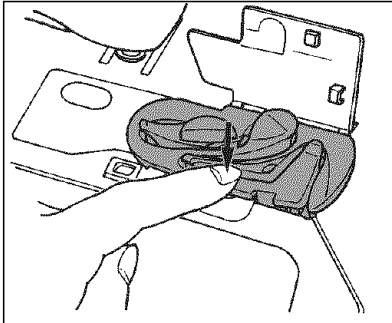


6 Thread the First Thread guide.



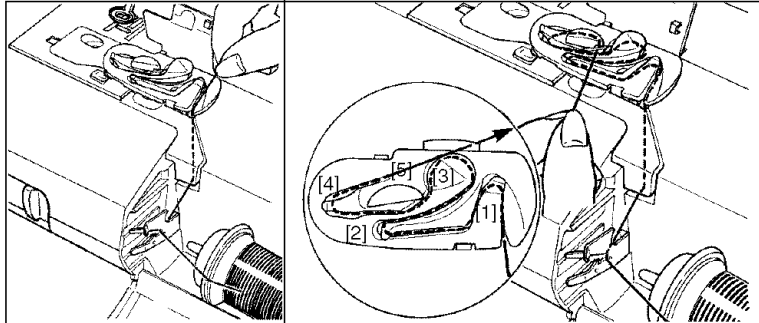
Use only large parallel wound spools of Bobbin Fill thread.

7 Install Bobbin Winder Guide.



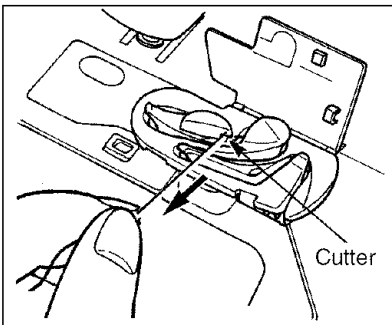
* Initially place Guide from its far side.
* Press front of guide until it clicks in place.

8 Pass thread along groove.



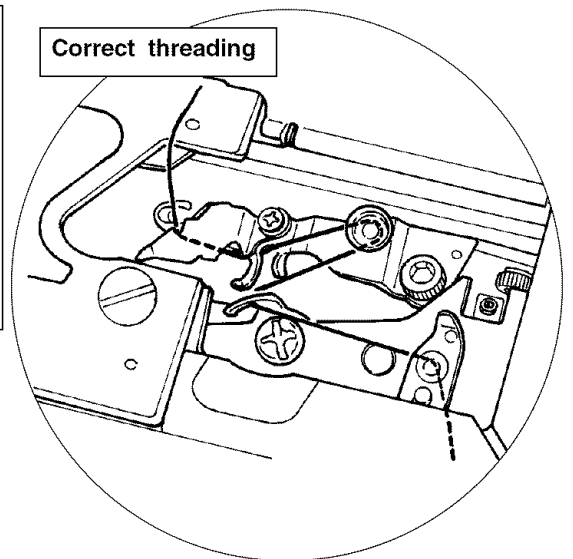
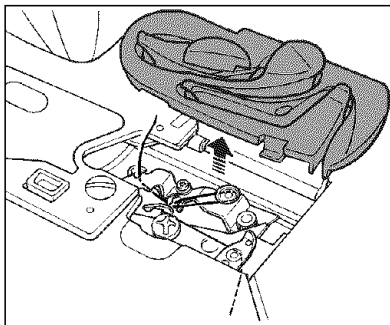
Follow the Threading Track around all the turns and thread points [1] through [5]. At numbered positions 1 ~ 3 lightly pull thread to assure it slips into position. At Position 4 pull thread slightly harder to assure thread passes under final spring. See Step 9 for Step 5 Instructions.

9 Pull thread in direction of arrow to cut thread.

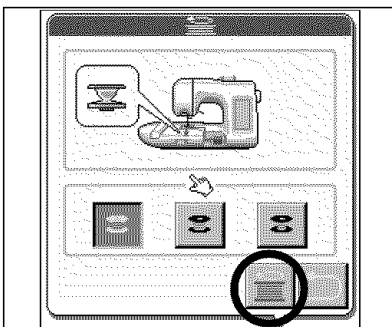


Draw thread toward you, and thread will be trimmed.

10 Remove Bobbin Winder Guide and close cover of Endless Bobbin Compartment.



11 Press pictogram located on upper part of LCD screen.



* To pause and re-start bobbin winding while machine is engaged in bobbin winding, press start/stop button.

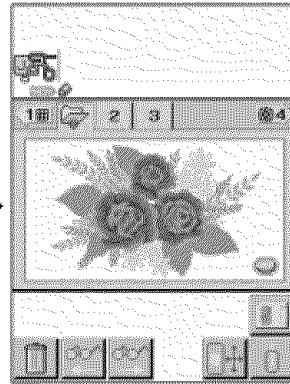
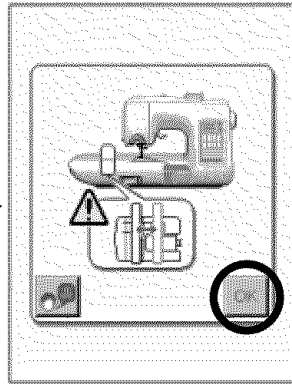
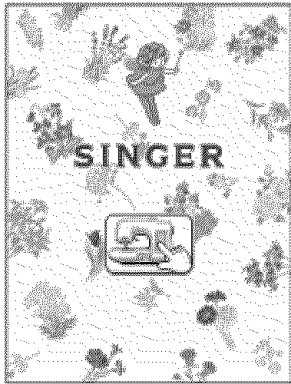
12



Upon completion of winding of bobbin, bobbin thread is automatically cut. Now, you can start embroidery with no additional preparation.

* When Bobbin Fill thread has run out during automatic winding of bobbin, a helpful message will appear on LCD screen and machine will stop winding bobbin. Make sure bobbin is correctly threaded in bobbin case (refer to page 120). Install new spool of bobbin fill thread and follow steps 2 ~ 10. Re-start machine, and it will start sewing remaining part of embroidery. When bobbin thread has run out, machine will automatically wind bobbin.

How to Select Floral Embroidery Patterns (color coded green)

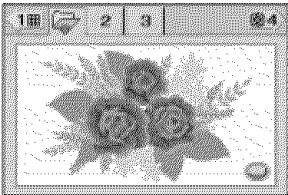


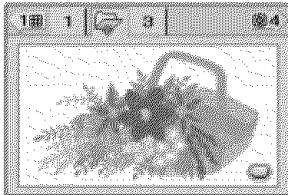
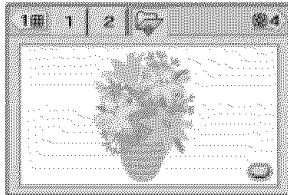

1 Touch Welcome screen. 2 Press  pictogram. 3

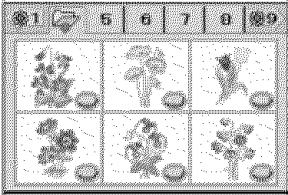

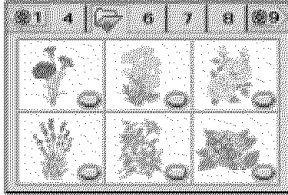

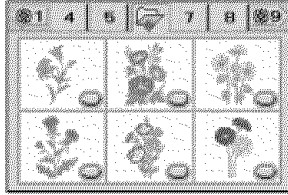

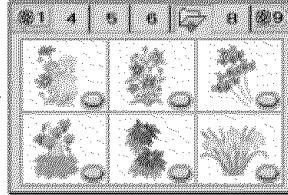



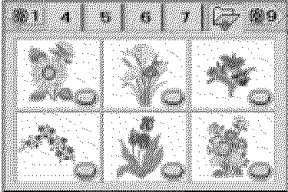
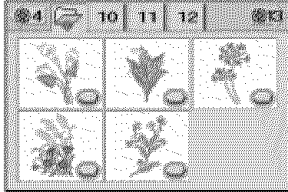

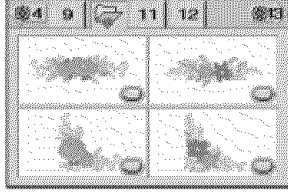

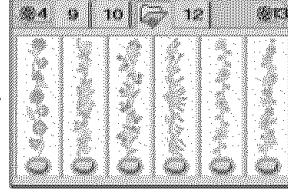
 : Used to cancel pattern selected.
 : Used to check patterns when number of patterns you have selected exceeds the number of those can be shown on single screen.


Note: When the Stitch Pattern Pictogram displays a "Targeting Oval" , to select pattern press gently on the  oval only.

How to select a pattern

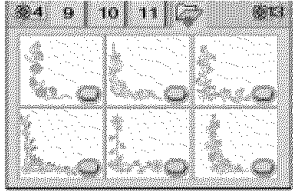
1  2 Press  3 Press    Press  and screen will appear as illustrated in step 4.

4  5 Press   6 Press   7 Press  

8 Press   9  10 Press   11 Press  

Press  and screen will appear as illustrated in step 9.

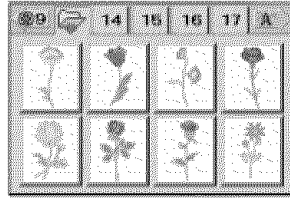
12 Press **12**



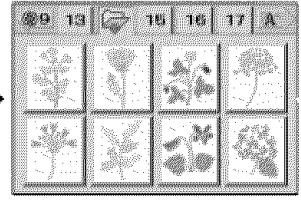
Press **13** and screen will appear as illustrated in step 13.

Press **4** and screen will return to the Step 4 Pattern Selection screen.

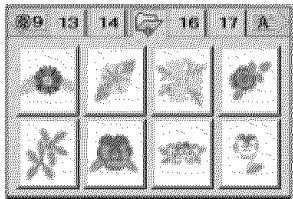
13



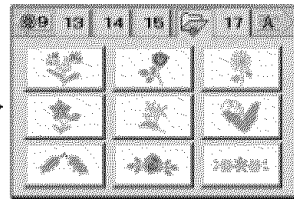
14 Press **14**



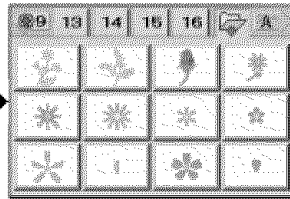
15 Press **15**



16 Press **16**



17 Press **17**



Press **A** key, and screen will appear as illustrated in step 18.

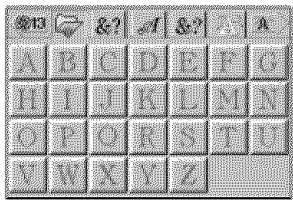
How to Select Large Floral Monogram (color coded rose)

Example)

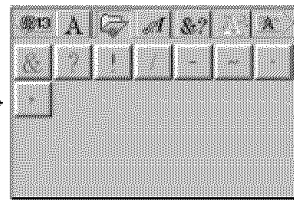


1. Select Alphabets.
2. Select Flowers.

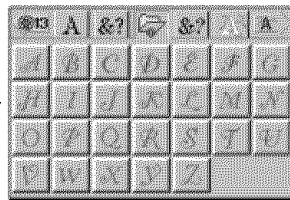
18



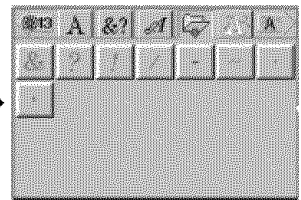
19 Press **&?**



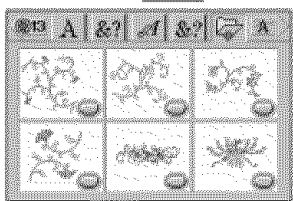
20 Press **A**



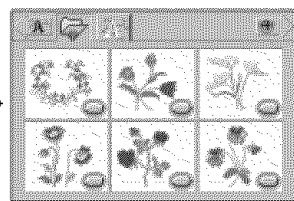
21 Press **&?**



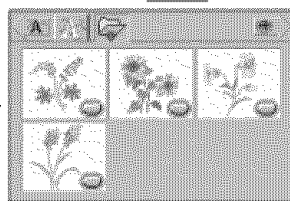
22 Press **A**



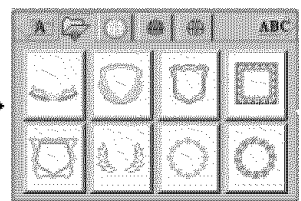
23



24 Press **A**



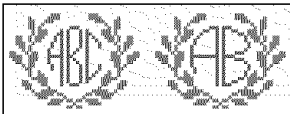
25



Press **A** key, and screen will appear as illustrated in step 23.

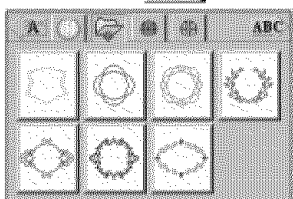
Press **ABC** key, and screen will appear as illustrated in step 25.

Example)

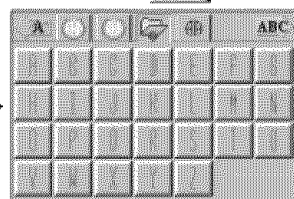


1. Select Frame.
2. Select Alphabets.

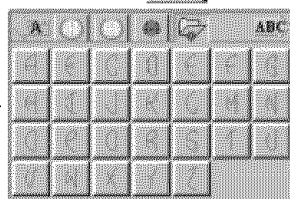
26 Press **ABC**



27 Press **ABC**

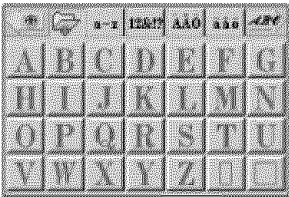



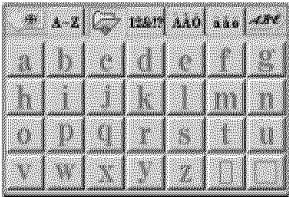
28 Press **ABC**


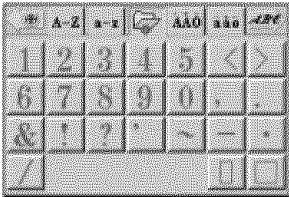



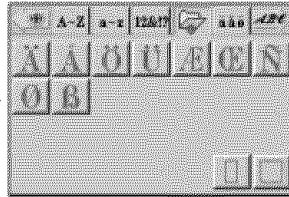
Press **ABC** and screen will appear as illustrated in step 29.


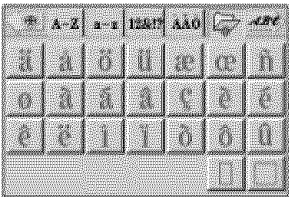
How to Select Letter and Number Patterns (color coded blue)

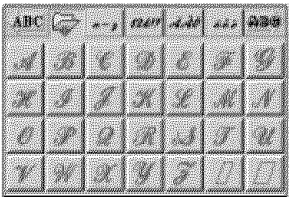
29 


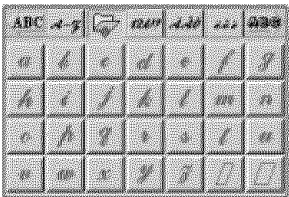
30 Press  


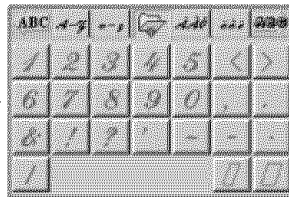
31 Press  


32 Press  


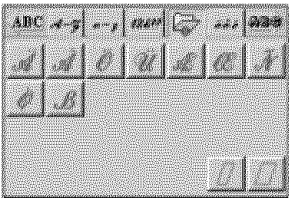
33 Press  


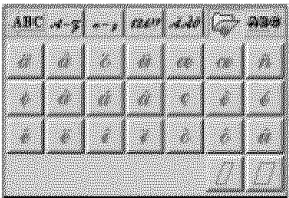
34 

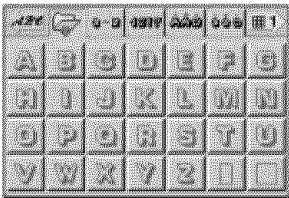
35 Press  


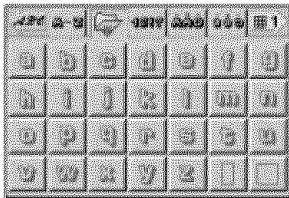
36 Press  


Press  and screen will appear as illustrated in step 34.


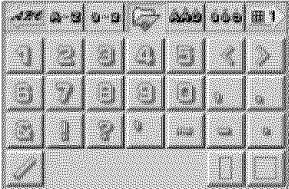
37 Press  


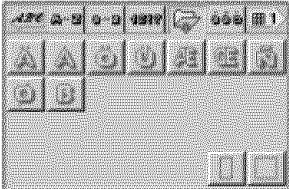
38 Press  


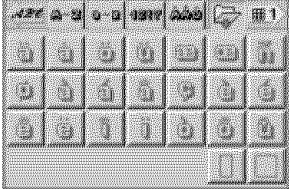
39 


40 Press  

Press  and screen will appear illustrated in Step 39.

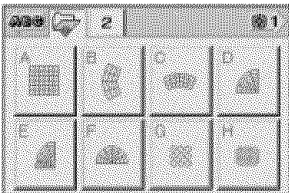
41 Press  


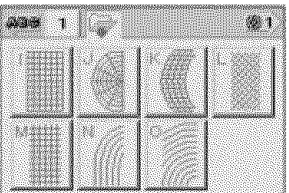
42 Press  


43 Press  

Press  and screen will appear as illustrated in step 44.

How to Select Layout Grid Patterns (color coded orange)

44 

45 Press  

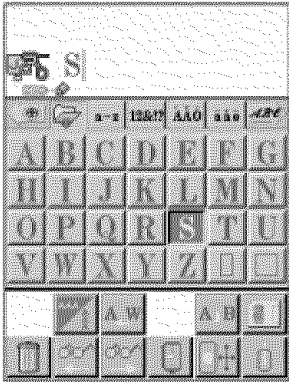
Press  and screen will return to Floral Pattern selection screen 1.

Grids can be used as a template when combining patterns or alphabet letters on the Layout Screen. The grids are appropriate for both Combination Embroidery and Multiple Hoop Embroidery.

- * Select and enter a grid suitable for combination of your desired layout pattern.
- * Select and enter desired patterns and alphabet letters and move them into the desired position with the edit function.
- * CAUTION: After completing your layout and before actually starting sewing, delete the grid pattern as the grids are actual sewing patterns and will be sewn if not deleted

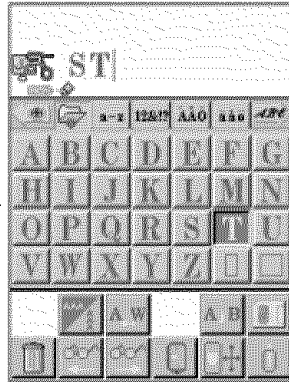
Example: Selecting "STAR"

1 Press **S**

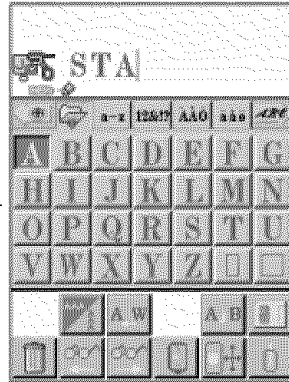


"S" appears on LCD screen.

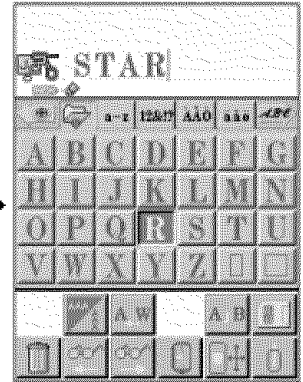
2 Press **T**



3 Press **A**



4 Press **R**

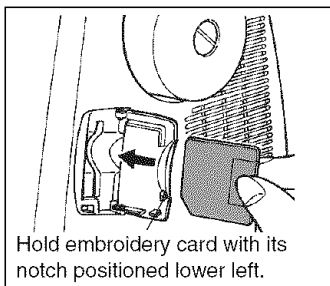


"STAR" appears on LCD screen.

In the case where Sew-Ware Embroidery Card (optional) is used:

Open Embroidery Card Slot Cover and load embroidery card into slot.

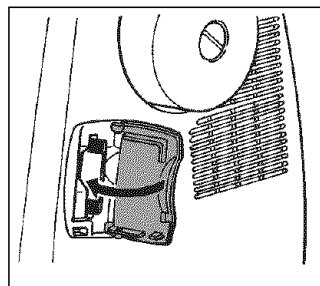
1




Hold embroidery card with its notch positioned lower left.

Holding embroidery card with its notch positioned in the lower left, insert it into card slot until it will go no further.

2 Close cover.



Be sure to close cover. If cover is left opened, embroidery card will be disabled.

3 Press  pictogram.

Patterns stored in embroidery card will appear on LCD screen.

Check contents with

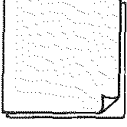
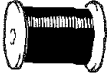

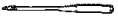


* Various kinds of optional Sew-Ware Embroidery Cards are available for the machine. Contact your Certified Singer Dealer for more information.

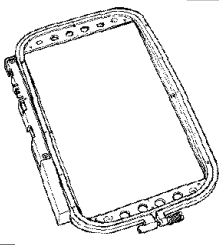
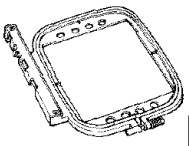
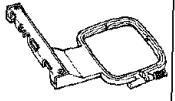


How to Sew Embroidery

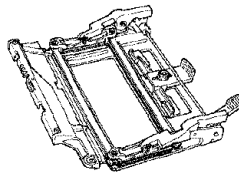
Fabric, thread and Needle

| | | |
|--|--|---|
| Fabric |  | Fuse iron-on stabilizer on wrong side of fabric with an iron. (Iron temperature should be set to "low" to "Medium.") |
| Type of thread | Needle thread  | Thread designed for sewing machine embroidery #40 Weight Rayon Thread recommended #30 Weight is acceptable alternative. |
| | Bobbin thread  | Bobbin fill thread |
| Type of needle  | | Singer Brand Sewing Machine Needles Size #11/80 or Size #14/90. (#11/80 needle is recommended for medium-weight materials.) |

Type of embroidery frames

| Large | Medium | Small |
|--|---|---|
|  |  |  |
| Embroidery range 240 mm (length) x 140 mm (width) | 114 mm (length) x 114 mm (width) | 55 mm (length) x 55 mm (width) |
| Application Used for large embroidery pattern such as combined patterns and multiple hoop embroidery. | Used for single patterns, etc. | Used for small embroideries such as a name on a handkerchief. |

Continuous embroidery frame



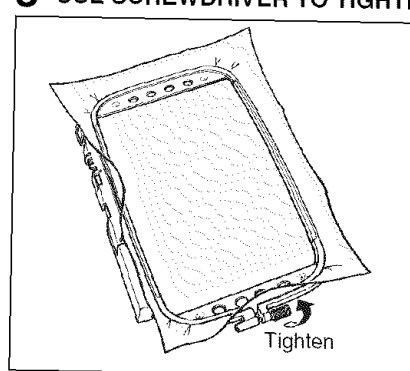
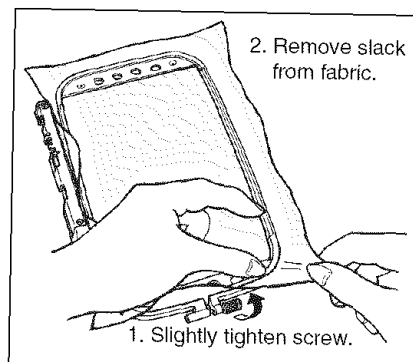
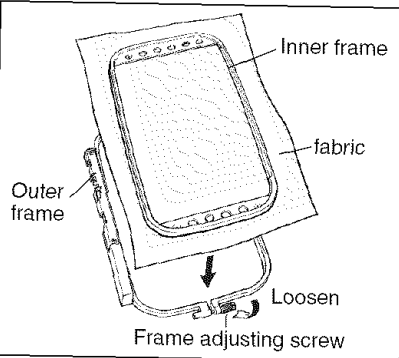
Use this frame for sewing embroidery inserts and borders that require perfectly matched repetition.

Installing fabric in embroidery frame

Loosen frame adjusting screw and place fabric between inner and outer frames so that marker lines align with raised marks on frame.

Slightly tighten frame adjusting screw and pull fabric edges to remove slack.

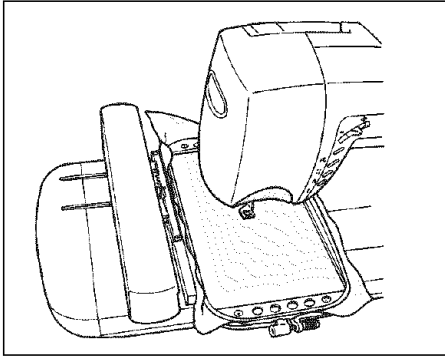
Once fabric is properly positioned in embroidery frame with no slack, securely tighten frame adjusting screw. **DO NOT USE SCREWDRIVER TO TIGHTEN!**



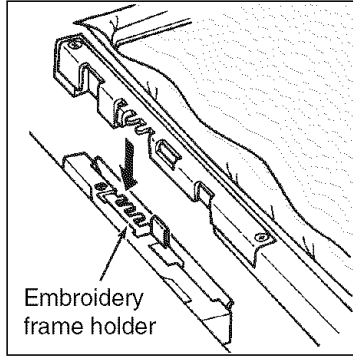
Check to be sure that fabric is properly tensed.

Attaching and removing embroidery frame

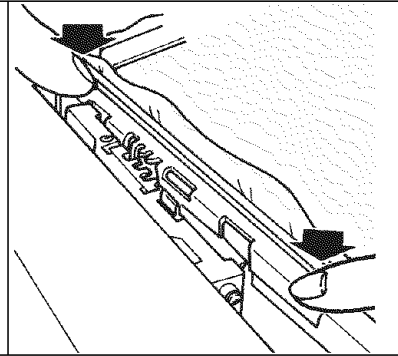
1 Fully raise embroidery presser foot and place embroidery frame under it.



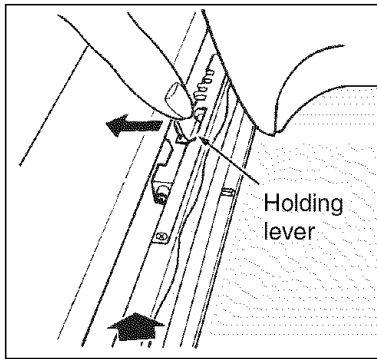
2 Fit the edge of frame in corresponding groove in embroidery frame holder.



3 Pressing far side of embroidery frame with fingers, push frame into slot located on embroidery unit until frame clicks into place.



● To remove embroidery frame



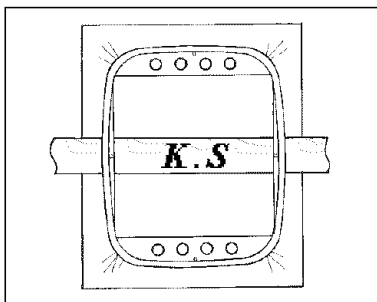
Pressing holding lever of embroidery frame holder to leftmost position, raise embroidery frame until it comes off from embroidery frame holder.

To embroider small fabric or edge of fabric:

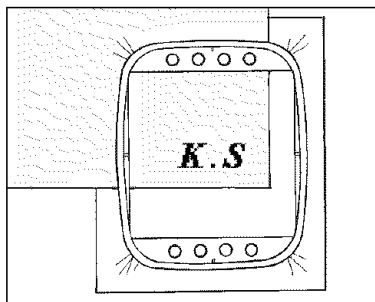
Fuse iron-on tear away type stabilizer on fabric before sewing embroidery. After completion of embroidery, tear off stabilizer from fabric.

* Use the small or medium size frame.

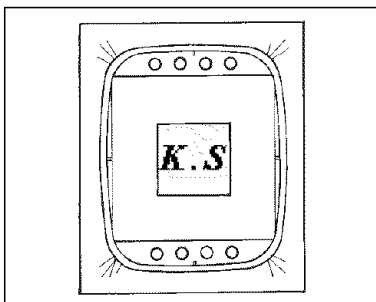
● To embroider narrow fabric such as ribbon tape:



● To embroider corner of fabric such as handkerchief:



● To embroider small fabric:



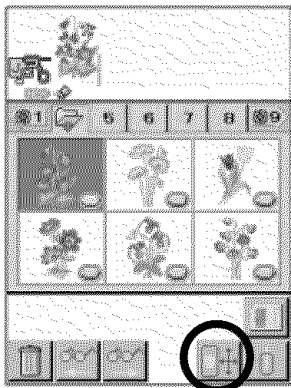
Basic Embroidering Trial Sewing

Example: For embroidering



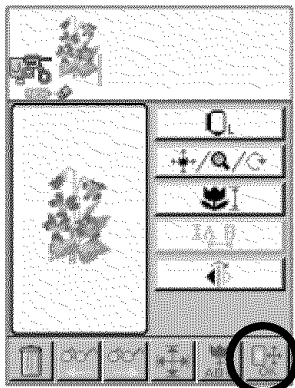
Note: As preparation for this Trial Sewing Example, install stabilized fabric in Medium Embroidery Frame and install frame on Embroidery Unit. Please note the sequence for this exercise has you operate the Thread Exchanger Semi-Automatically.

1 Select desired pattern.
(In this case, pansy of
"Flower Screen 4")

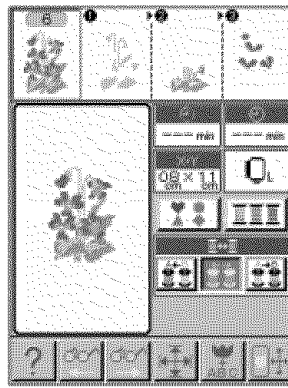


2 Press  pictogram.

3 Press  pictogram.

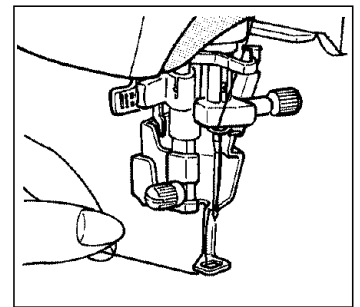


4

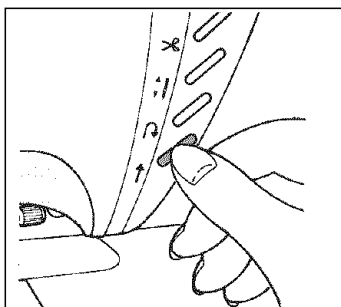


5

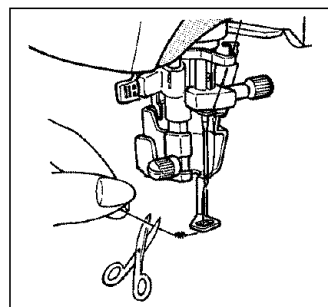
Thread machine with first color thread. Pass thread through the hole in the embroidery foot and lightly hold thread with your left hand to begin sewing.



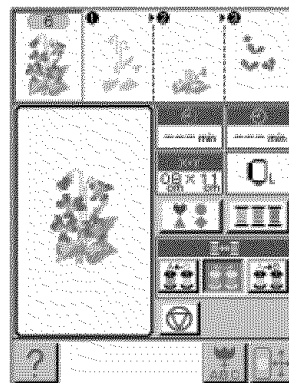
6 Lower embroidery presser foot. Press start/stop button.



7 Sew five or six stitches. Stop machine. Cut away any excess thread from edge of stitches.

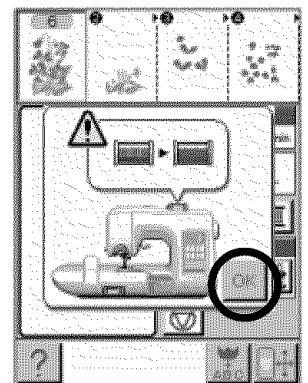


8 Re-start machine.



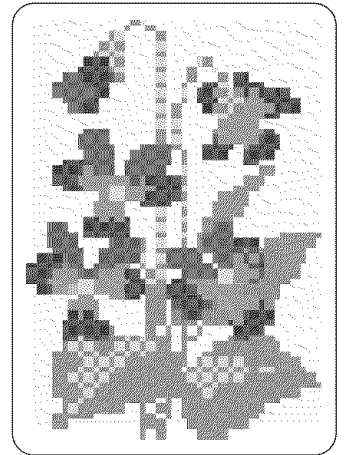
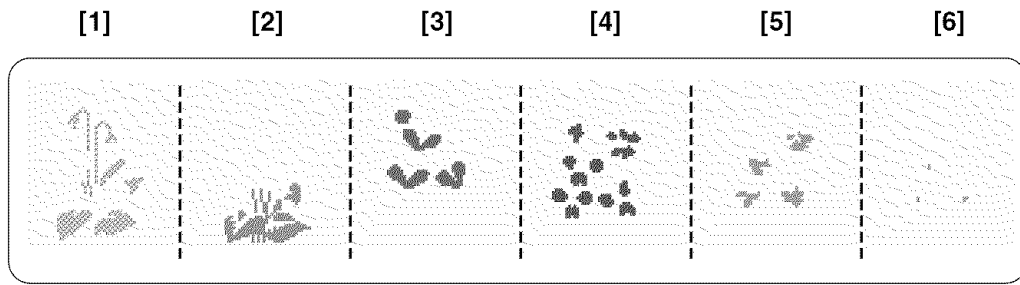
This machine will sew portion "1" of selected embroidery pattern and automatically stop.

9 Upon completion of sewing, relevant message will appear on LCD screen.

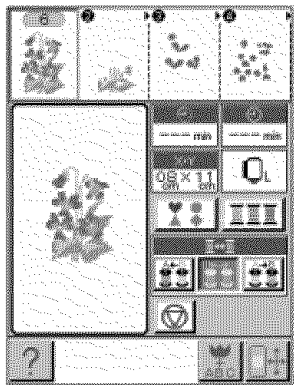


Press  to clear message.

Embroidering sequence

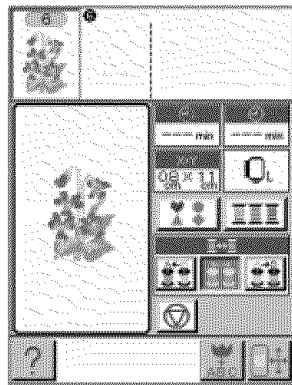


10 Refer to instructions for thread Exchanger on Pages 63 and 64. Rewind Color Step 1 thread and use Semi-Automatic method of threading to change thread to 2nd color thread. Start machine.



Machine will sew portion "2" of selected embroidery pattern and automatically stop.

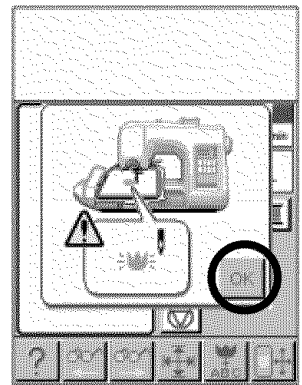
11



For 3rd to 6th color threads, repeat Step 10. Finally, machine will sew portion 6 of selected embroidery pattern and automatically stop.

* As you sew each section of the color thread sewing order on upper part of LCD Screen will shift to the left in sequence so the current step is always in the leftmost position.

12

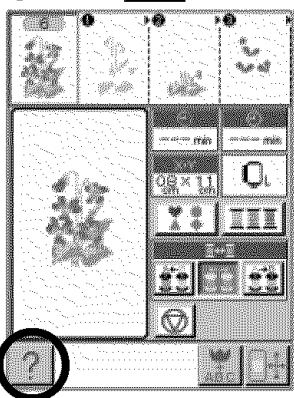


Press **OK** and screen will return to initial screen.

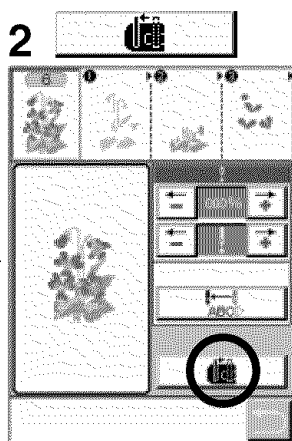
For ease in Manual Threading

If thread has broken during sewing, move carriage for easier threading.

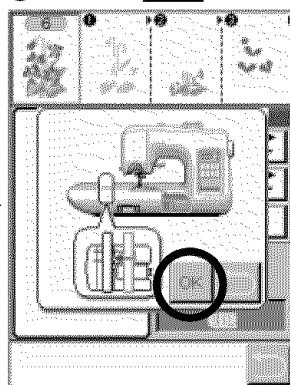
1 Press **?** pictogram.



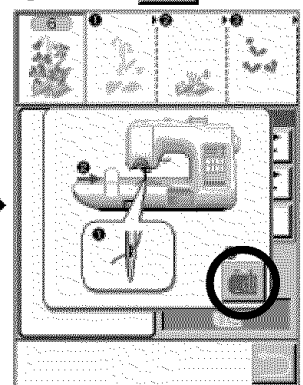
Press



3 Press **OK**



4 When the threading has been completed, press **ABC** pictogram.



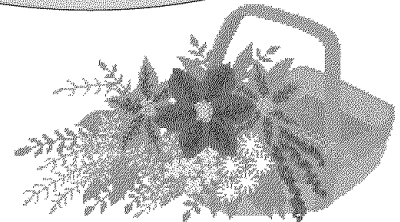
* Press **ABC** pictogram, and screen will return to screen 1.

Complete Sequence of Embroidery

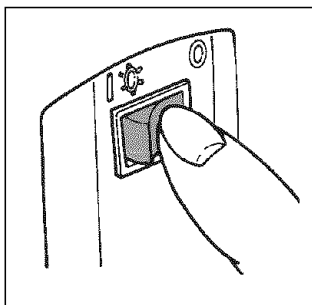
Even if bobbin thread has run out during sewing, machine will automatically wind bobbin with bobbin thread to allow operator to continue sewing without interrupting sewing.

* Properly load Endless Bobbin. Note: For the Endless Bobbin Feature to function, the Automatic Bobbin Winding Optional Setting must be "ON." (See page 117.)

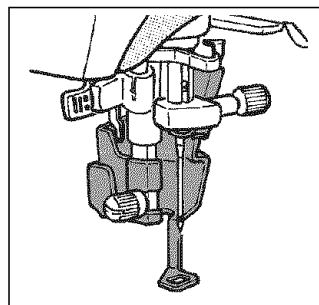
* When machine performs automatic bobbin winding, machine will move embroidery frame to remove thread remaining on bobbin. Be careful to not obstruct embroidery frame movement while machine is engaged in automatic bobbin winding.



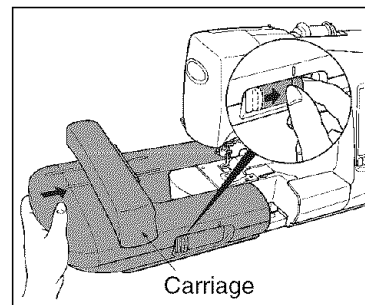
1 Turn power off.



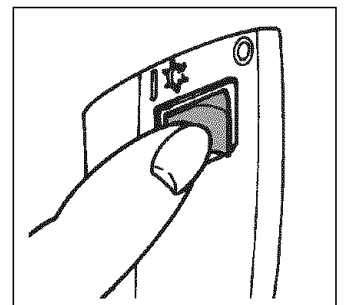
2 Attach embroidery foot (J).



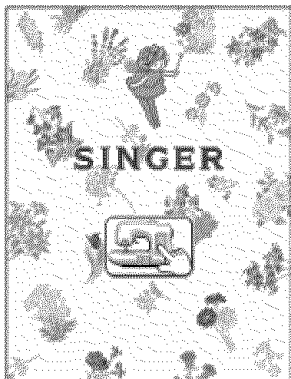
3 Install Embroidery Unit.



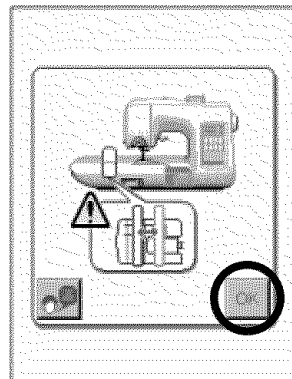
4 Turn power on.



5 Touch LCD screen.



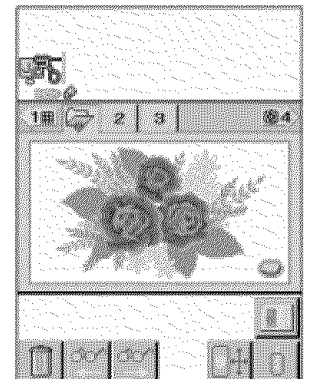
6 Press



7 Set Endless Bobbin .

* See pages 65 and 66 for description of Endless Automatic Bobbin Winding.

8 Select a desired pattern.



* Refer to pages 63 to 65 for how to select patterns and alphabet.

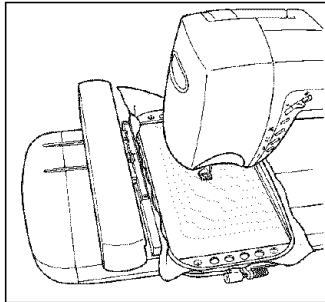
* When Bobbin Fill Spool has run out during automatic winding of bobbin, a Helpful Message will appear on LCD screen and machine will stop winding bobbin. Make certain bobbin is threaded correctly in the Bobbin Case, referring to page 120. In addition, install a new spool of Bobbin Fill Thread. Press start and the machine will start to sew where it left off. When bobbin thread runs out of thread once again, the machine will automatically wind bobbin.

9 At this point before sewing the Pattern or Combination of Patterns, the Screen Layout can be edited.

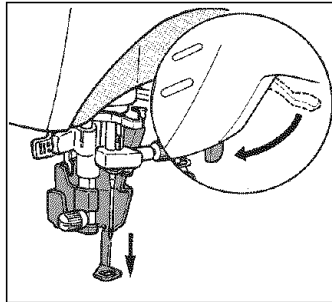
- See page 77 for how to move pattern to different embroidering location inside embroidery frame.
- See page 78 for how to rotate or change size of patterns or letters.
- See pages 79 and 80 for how to change orientation of letters stored in memory from horizontal to vertical or change interval between letters.
- See pages 81 and 82 for how to combine patterns and letters.
- See pages 83 to 90 for how to continuously sew letters using the Multiple Hoop Function
- See pages 91 and 92 for how to layout and sew a Combination Patterns and Letters Multiple Hoop Design
- See pages 97 and 98 for how to store letters and patterns in memory.

Raise embroidery presser foot. Install embroidery frame with stabilized fabric.

10



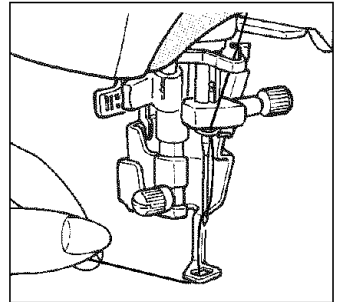
11 Lower embroidery foot.



12 Thread Sewing Machine.

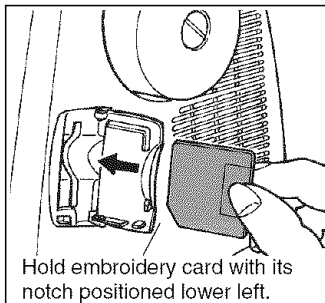


13 Start machine.

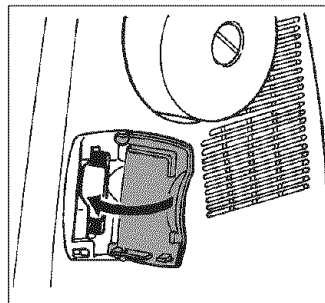


To use embroidery card (optional)

Inserting Sew-Ware Embroidery Card

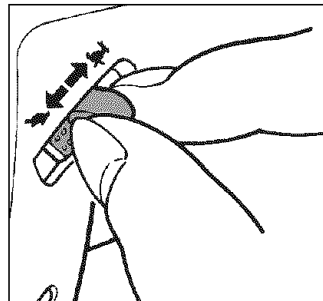


Holding embroidery card with its notch positioned in the lower left, insert it into card slot until it will go no further.



Be sure to close cover. If cover is left opened, embroidery card will be disabled.

How to Change Embroidering Speed



The embroidery sewing speed can be set with the Speed controller to Slow, Medium or Maximum Speed. Being able to slow the sewing speed is useful when joining complex Multiple Hoop Patterns or using a special embroidery thread that is prone to breakage.

“Time required for embroidering” and “remaining time” are shown on LCD screen.

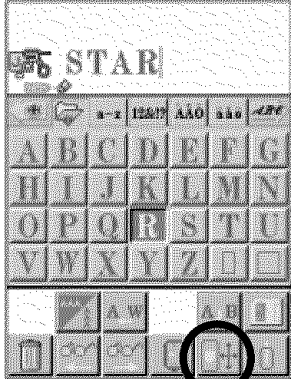
* If you have selected Slow or Medium Speed, when you use an optional embroidery card, the embroidery time required for embroidering indicated in the Instructions for the embroidery card will not agree with the time and remaining time shown on the LCD screen.

The time required for embroidering indicated in Instructions for the embroidery card is calculated for maximum speed.

Moving and Confirming location of patterns and letters

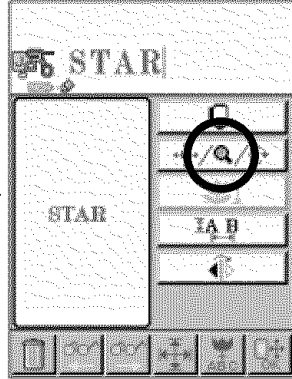
To change the location within the Frame

1 Press  pictogram.

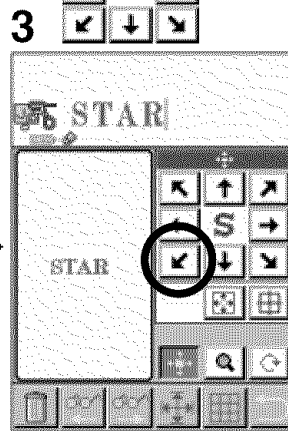
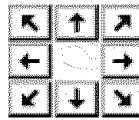



This will automatically take you to the Editing Menu Screen.

2 Press  Pictogram.



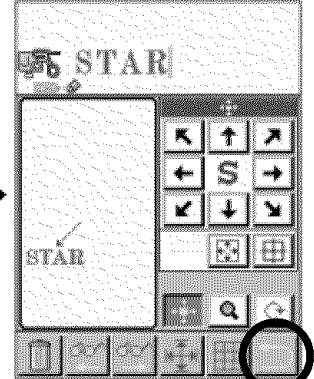
Press selected Direction Arrow




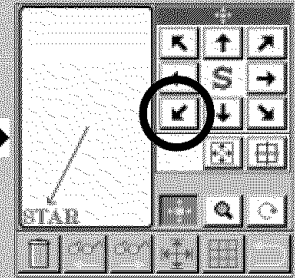
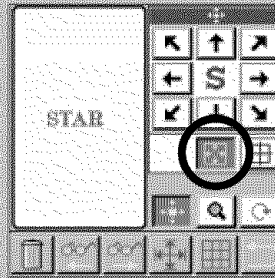
* Hold Arrow to increase moving speed.
* Pressing  will return to center position.

After completion of location changing,


4 press  pictogram.

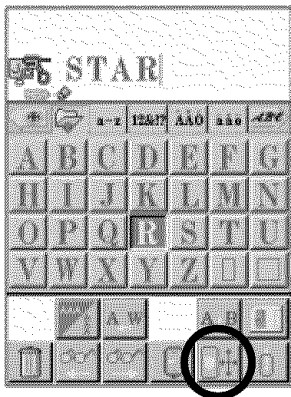


* For a quick movement, first press  pictogram. Then press arrow of direction you want pattern to move. The pattern will move to the corner or side of embroidery frame in the direction corresponding to arrow key pressed.

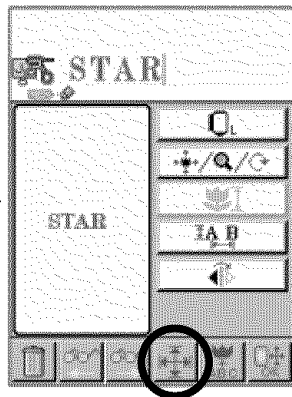


To confirm the location of embroidery on fabric

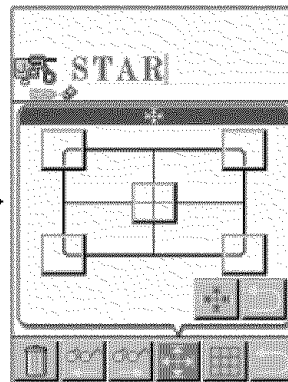
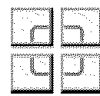
1 Press  pictogram.



2 Press  pictogram.



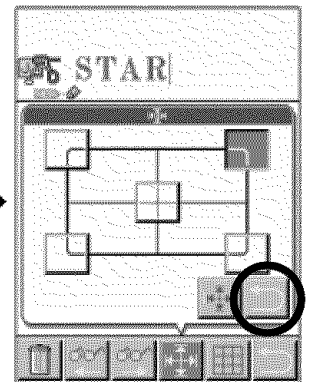
Press each Corner Pictogram





Embroidery frame will move and stop at each corner to indicate sewing range.

After completion of range confirmation

4 press  pictogram.

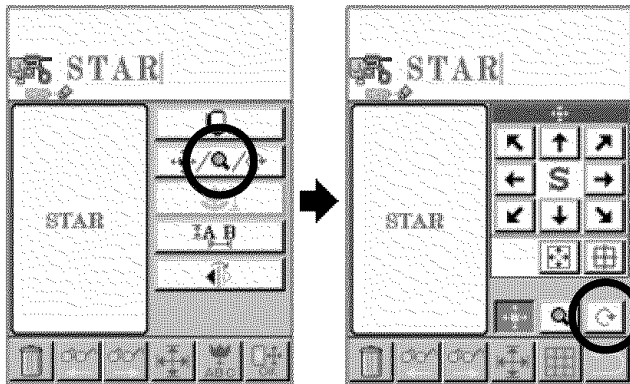


When  is selected, frame moves as long as  is pressed.

Rotating/changing size of patterns and letters

To rotate patterns and letters

1 Press pictogram. 2 Press pictogram

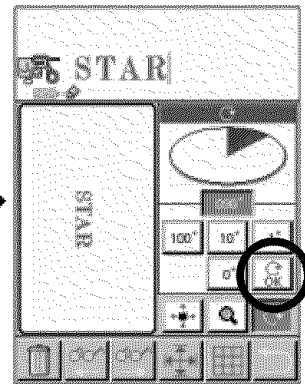
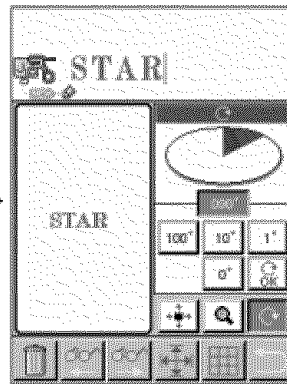


3 Press

| | |
|------|-----|
| 100° | 10° |
| 1° | 0° |

 combinations of numeric pictograms to establish angle of rotation.

4 Press



Every press on key will increase angle.

Example: To obtain 090°
Press

| |
|-----|
| 10° |
|-----|

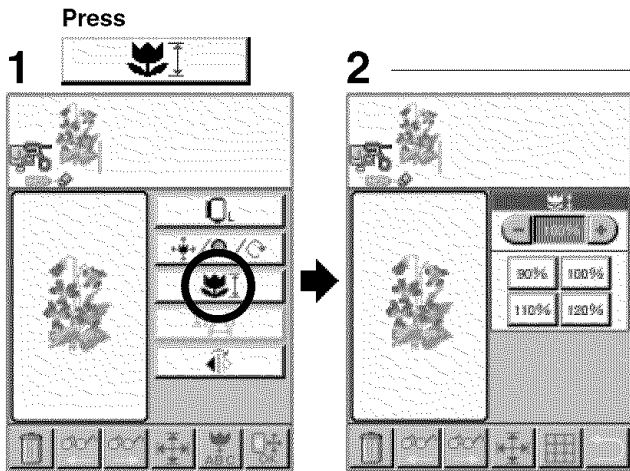
 picto nine times.

* If pattern is located near the edge of embroidery frame, pattern may not be rotated according to angle of rotation desired.

* In such a case, center location of embroidery pattern to allow angle setting.

To change size of pattern

* The size of some Embroidery Card Designs are pre-set and cannot be changed.



Press one of

| | |
|------|------|
| 90% | 100% |
| 110% | 120% |

 to change pattern size as desired.

To change pattern size in increments of 1%, press or . (Data setting range: 90 % to 120 %)

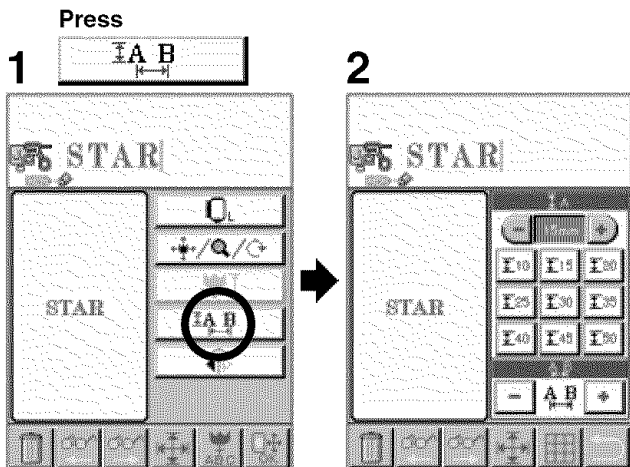
The limit of pattern enlargement differs with patterns.

* Some patterns may be enlarged further by rotating by 090°
* A pattern that is located near the edge of embroidery frame may be further enlarged (as large as by 120 %) by returning to the center position.

3 Upon completion of changing the pattern size press

To change size of letters

* In the case where letter size is reduced to less than 15 mm, the letter detail is too small to show on screen and will be indicated as



Press one of

| | | |
|----|----|----|
| 10 | 15 | 20 |
| 25 | 30 | 35 |
| 40 | 45 | 50 |

 to change pattern size as desired.

To change pattern size in increments of 1 mm, press or . (Data setting range: 7 mm to 60 mm)

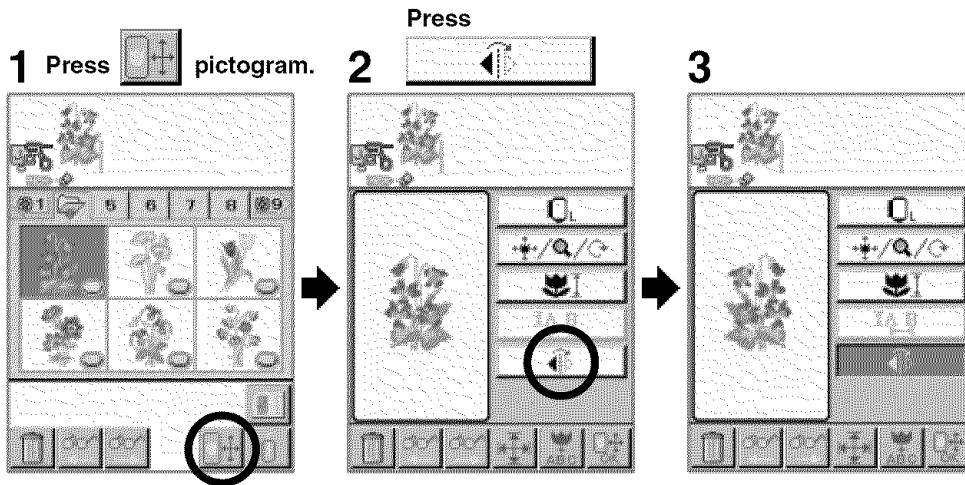
The limit of letter enlargement differs with number of letters.

* Some numbers of letters may be enlarged further by rotating 090°
* A letter that is located near the edge of embroidery frame may be further enlarged (as large as 60 mm) by returning to the center position.

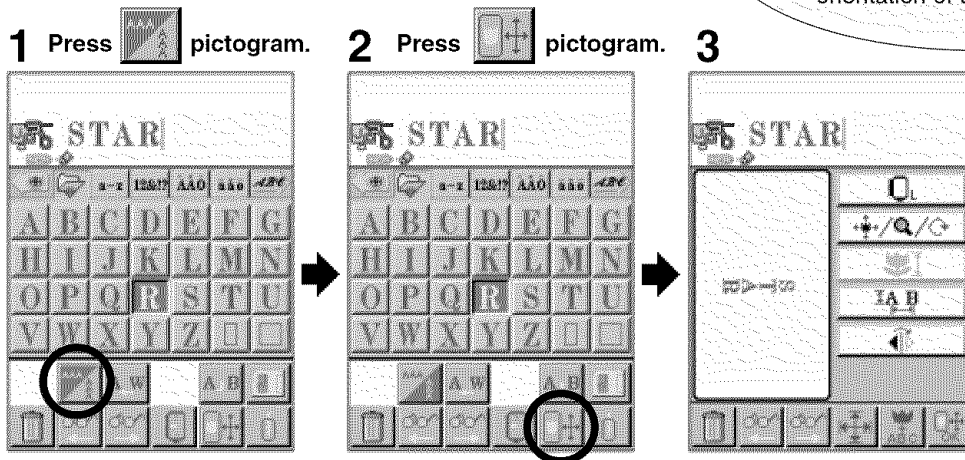
3 Upon completion of changing the letter size, press

Mirror Imaging and Horizontal / Vertical Orientation

To Mirror Image Patterns



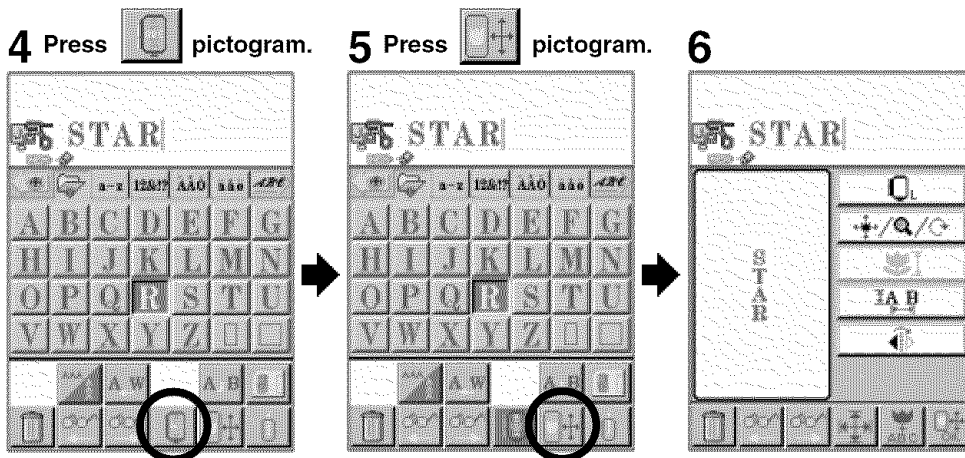
To change orientation from Horizontal to Vertical



Note:
Horizontal and Vertical relates to the direction of the letters within the screen. Portrait and Landscape relates to the orientation of the screen itself.



To change orientation between portrait and landscape orientations




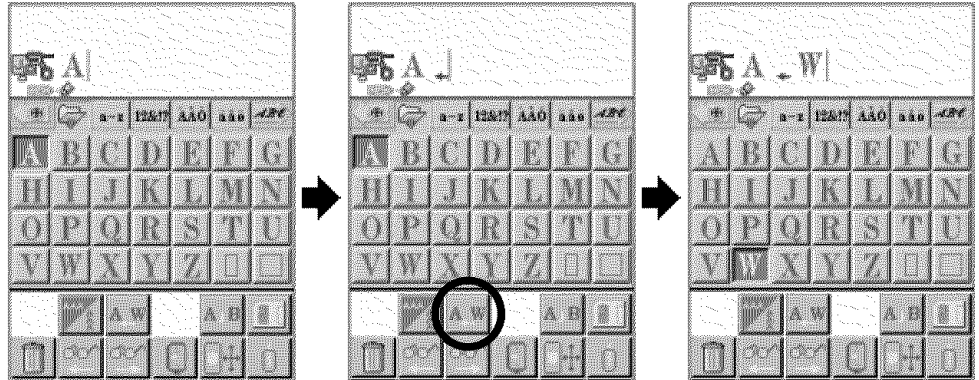
Changing space and interval between letters and dividing letters

To change the spacing between “kern letter combinations” such as A F L P T W Y

The space between “kern letters” stored in memory of machine can be decreased within embroidery frame .


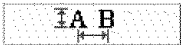
To decrease space between “Kern Letters”

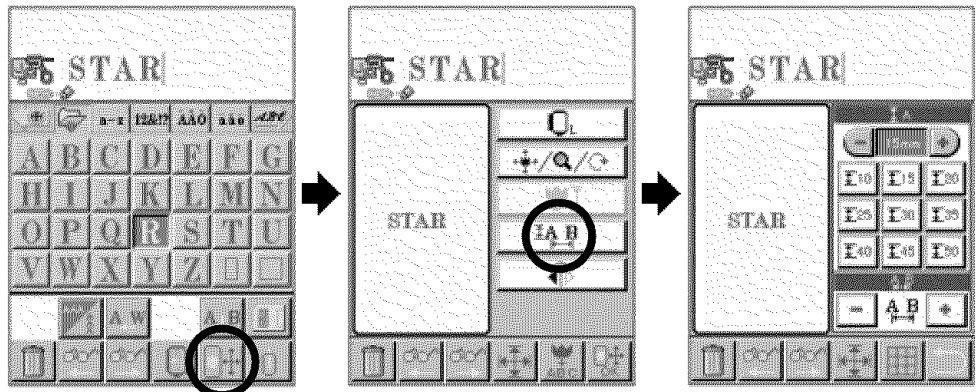
- 1 Select first letter of Kern Combination.
- 2 Press  pictogram.
- 3 Select second letter of Kern Combination.



* Letter display on layout screen is given for reference. It will be different from actual embroidery result.


To change spacing between letters on layout screen

- 1 Press  pictogram.
- 2 Press  pictogram.
- 3




Press  picto to decrease space between letters.

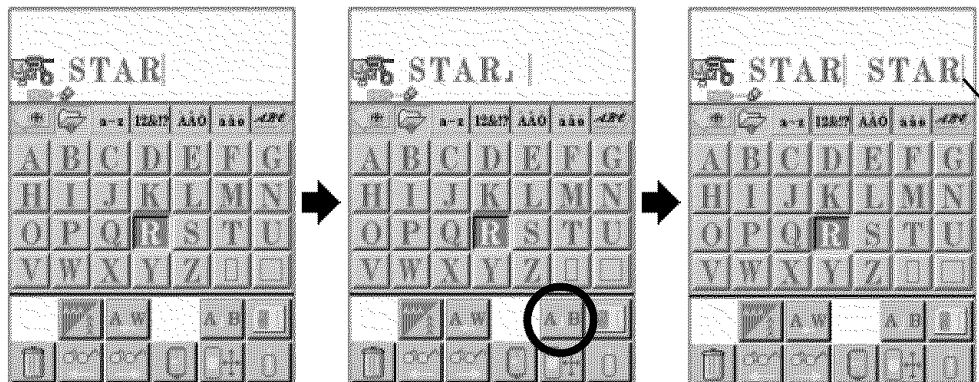
Press  picto to increase space between letters.

After completion of space changing, press 

To divide letters


Letters stored in memory of machine can be edited by dividing characters into several groups.

- 1 Select a desired word.
- 2 Press  pictogram.
- 3 Select another word.



“STAR” and “STAR” can be separately edited.

Cursor

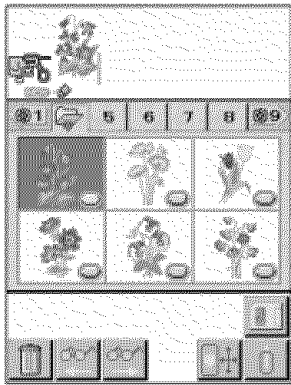
To add a new pattern between two existing patterns, move cursor to pattern inserting position using  picto and select pattern to be added.

Combination Sewing: combining patterns and letters

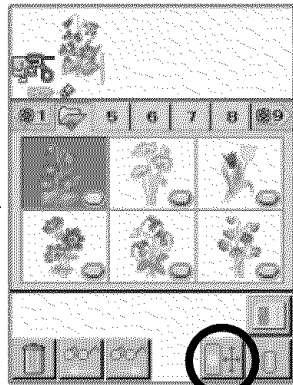


Example)

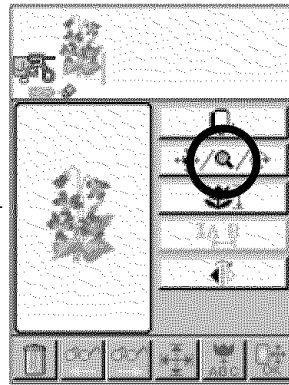
1 Select pansy pattern of 4



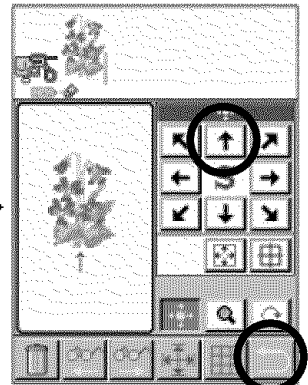
2 Press pictogram.



3 Press



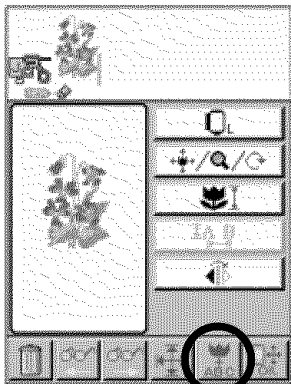
4 Change location of pattern.



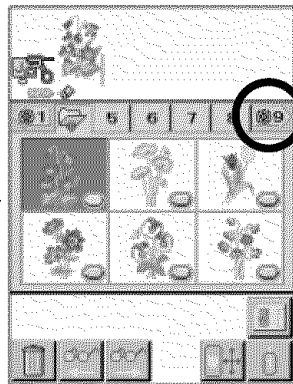
Press



5 Press pictogram.

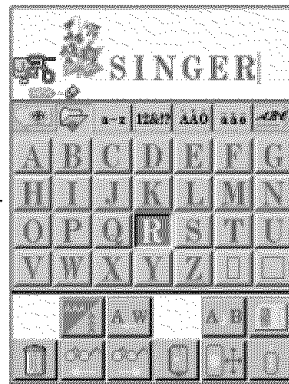


6



Press arrow () in repetition until letter screen appears.

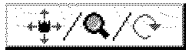
7 Select a desired word.



8 Press pictogram.



9 Press



10 Change location of letters according to pattern location.



When you press picto grid lines will appear on LCD screen to use as an aid for placement.




Press the Graph pictogram a second time to clear the grid.

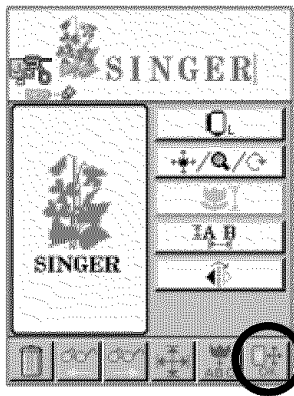
* At this time, press six times if you want to edit the pattern. This will change the selection from the letters to the pattern for editing.

When the Layout is

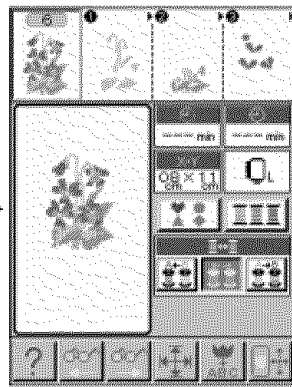
complete, press

Install embroidery frame designated on screen.

11 Then, press 




12 Start sewing machine.




The pattern and letters will be embroidered following the order of selection. In this case, the pattern will be embroidered first.

* To embroider letters first,

press  picto to change the order of sewing from pattern to letters.

When machine has sewn all 6 color steps of the pattern it will stop. Change the needle thread and re-start the machine. Now, machine will embroider the letters.

When you press  pictogram all patterns entered and edited on screen will be shown on LCD screen.
















Another press on the pictogram will return the screen to the previous state.



For a quick review of all the color steps in a pattern press the Pictogram on the Sewing Screen with the Green, Blue and Red Thread Spools.






Function of Pictograms displayed on the LCD screen

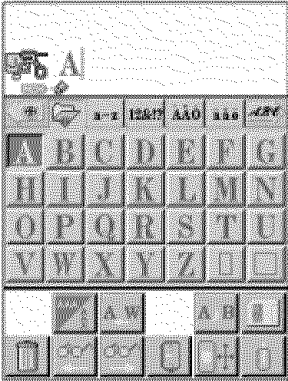
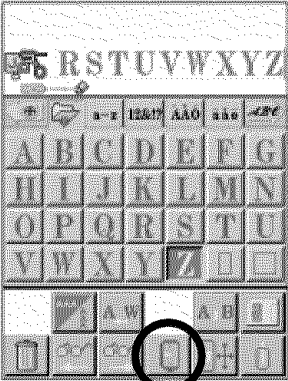
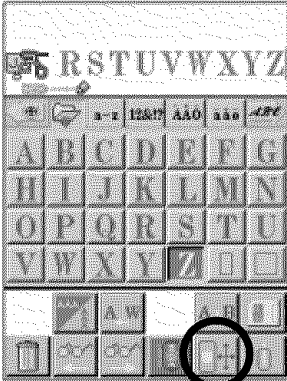
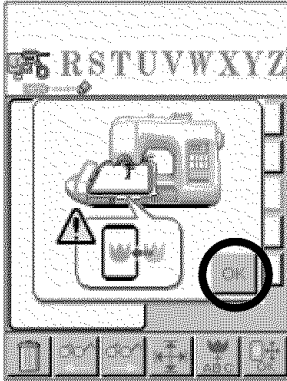
| | | | |
|---|--|---|--|
|  | Used to activate Layout and Editing Menu screen after pattern has been entered. |  | Used to set orientation of characters to Horizontal or Vertical orientation. |
|  | Used to combine patterns. |  | Used to decrease space between "Kern Letter Combinations." |
|  | Used to clear letters and patterns designated. Pressing pictogram for three seconds or more will clear all letters and patterns. |  | Used to divide letters into several groups. |
|  | Used to move carriage to check sewing range. |  | Used to set orientation of pattern layout in embroidery frame to "landscape" or "portrait". |
|  | Used to indicate graphic layout lines within embroidery editing box on screen. |  | Used to switch to Sewing Screen. Note: will only switch after installing specified embroidery frame on machine. |
|  | Used to return to layout screen. | | *Used to activate  Pictogram that moves Carriage for ease in threading. |
|  | Used to check letters when a large number of letters are stored in memory or change specific pattern to be edited. Also used to change sewing order. |  | *Used when thread has broken during sewing. (See pages 99 and 100) |
|  | | | * Used to move to another embroidery step or to an exact spot within a specific embroidery step. |




Multiple Hoop Embroidery [Example 1]

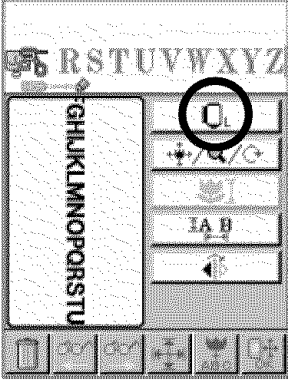
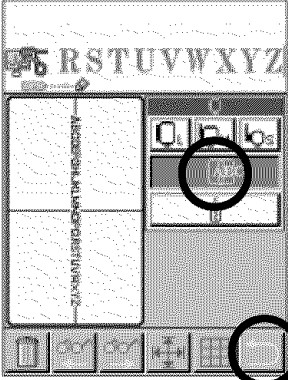
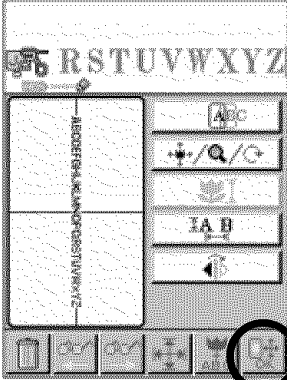
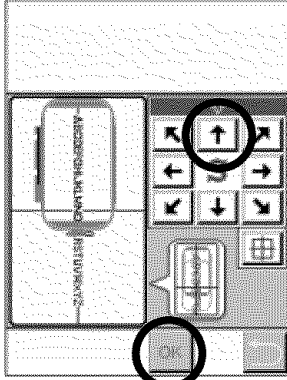
* This embroidering method is used to divide embroider letters that stretch beyond a single embroidery frame into several parts and sew them precisely matching one group of letters to the other.



Example) To embroider a string of letters laid out on upper part of LCD screen

1 Select desired letters. **2** Press  pictogram. **3** Press  pictogram. **4** Press  pictogram.

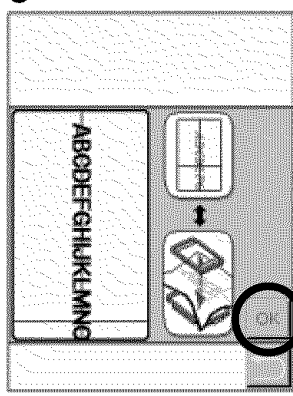





5 Press  **6** Press  **7** Press  **8** Designate location of letters to be sewn first.







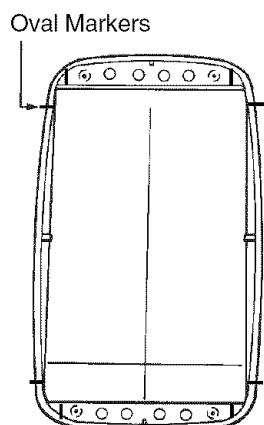
Press  Adjust so that location of letters to be sewn first is positioned at center of embroidery frame. Press 

9 See top of next page for Preparation of Fabric Instructions



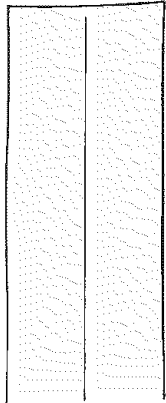
* Referring to the LCD Display place fabric in Embroidery Frame so that horizontal and Vertical Marker lines on fabric are placed inside Oval Markers indicated on Embroidry Frame. Note: The Oval Markers indicate the sewing area.

Upon completion of the procedure, press  Install embroidery frame on machine.

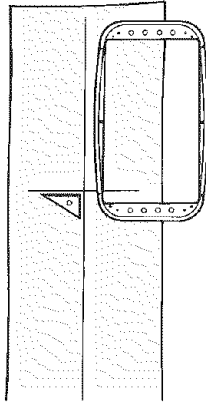


Preparation of fabric

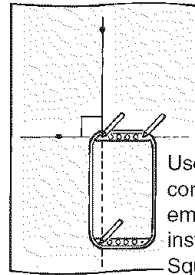
1. With Fabric Marker draw a vertical (Y axis) line on fabric.



2. Draw a horizontal (X axis) line at right angles to vertical line within sewing range of embroidery frame.

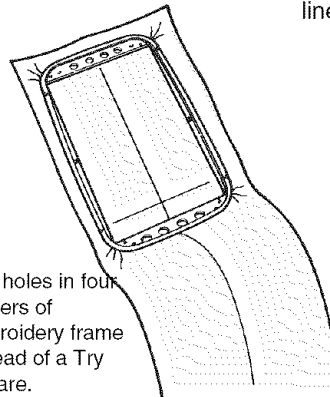


* How to draw a lateral line when a Try Square is not available:

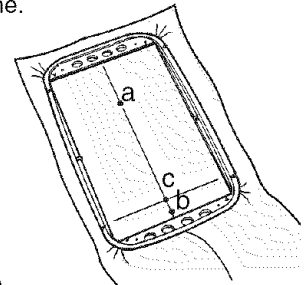


Use holes in four corners of embroidery frame instead of a Try Square.

3. Install fabric in embroidery frame.



4. Checking needle entry points by operating LCD screen, specify needle entry points "a" and "b" on Y axis vertical line and "c" on X axis horizontal line.



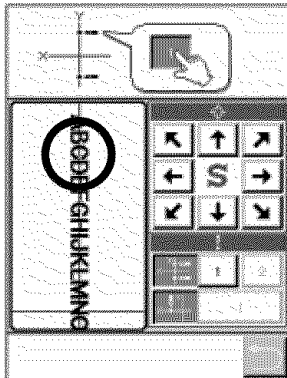
* Points (Y axis vertical line) must be at least 5 cm (2 inches) apart

10

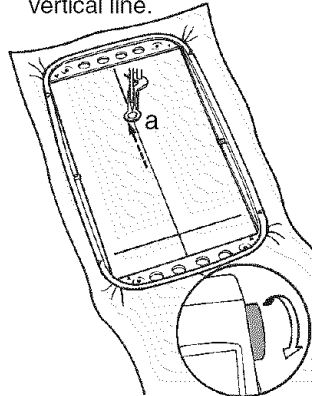
Operation of LCD screen for specifying needle entry points "a" "b" and "c"

1. Specifying point "a"

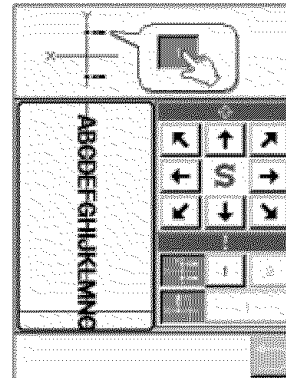
1 Touch screen at upper part of vertical line. This will move embroidery frame.



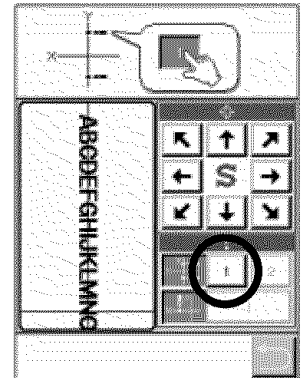
2 Turn handwheel to check that needle is positioned directly above Y axis vertical line.



3 Press needle position direction arrows so that needle point is directly above Y axis vertical line. For each needle entry point, be sure to turn handwheel to lower needle to verify that needle point is directly above Y axis vertical line.

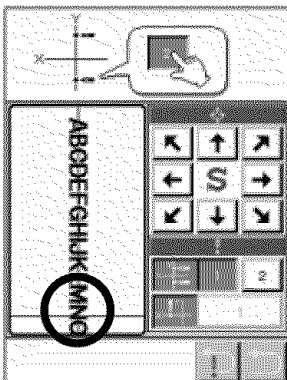


4 Once needle entry point is correctly specified on the Y axis vertical line, press position memory [1] for first point.

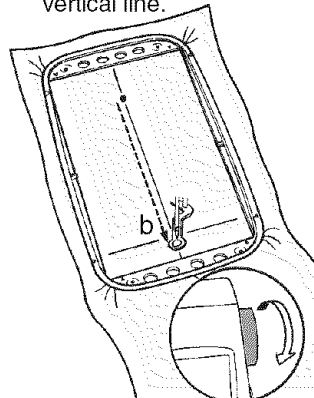


2. Specifying point "b"

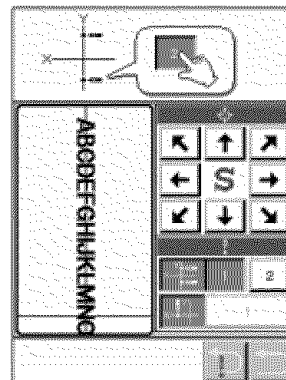
1 Touch screen at lower part of vertical line. This will move embroidery frame.



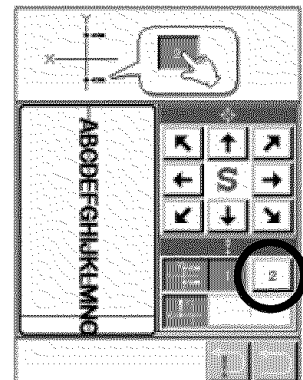
2 Turn handwheel to check that needle is positioned directly above Y axis vertical line.



3 Press needle position direction arrows so that needle point is directly above Y axis vertical line. For each needle entry point, be sure to turn handwheel to lower needle to verify that needle point is directly above Y axis vertical line.



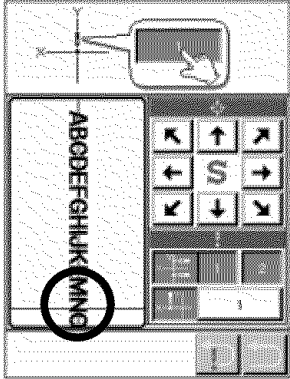
4 Once needle entry point is correctly specified on the Y axis vertical line, press position memory [2] for second point.



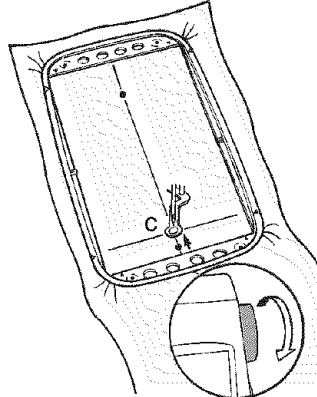
3. Specifying point "c"

Touch screen at far left point along X-axis horizontal line.

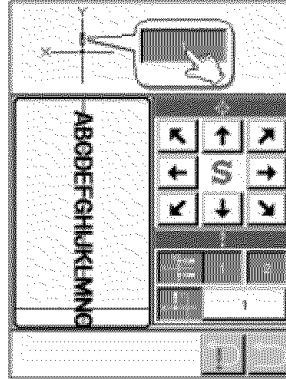
- 1 This will move embroidery frame.



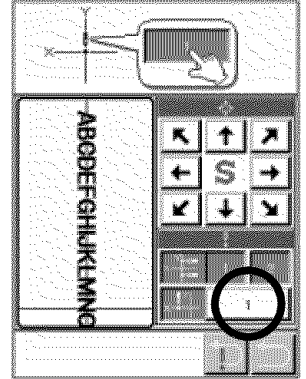
- 2 Turn handwheel to check that needle is positioned directly above X axis horizontal line.




- 3 Press needle position direction arrows so that needle point is directly above X axis horizontal line. For each needle entry point, be sure to turn handwheel to lower needle to verify that needle point is directly above

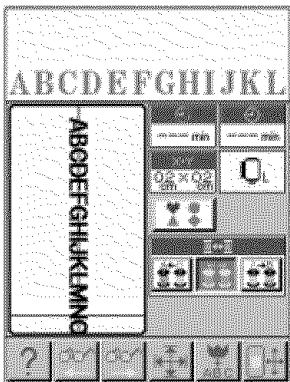


- 4 Once needle entry point is correctly specified on X axis horizontal line, press position memory [1] to enter position of X-axis.



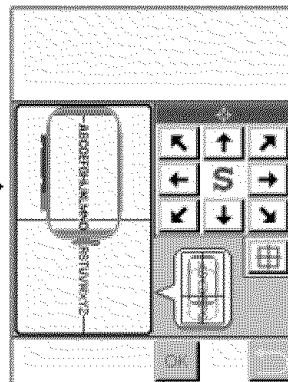
* To re-specify needle entry point locations of Y axis (before memorizing X axis) press  pictogram.


11 Start machine.



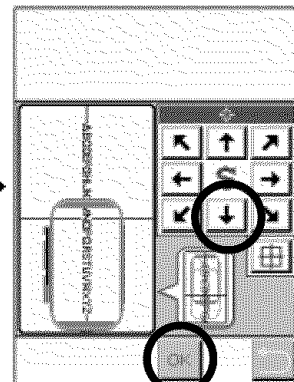
Sewing machine will embroider pattern located in designated position.

12



Press 

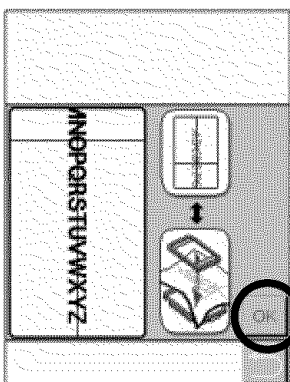
13 Designate location of pattern to be embroidered next.




Press the arrow to position the on-screen frame around the second group of letters to be sewn.

Press 

14 See top of next page for Preparation of Fabric Instructions.

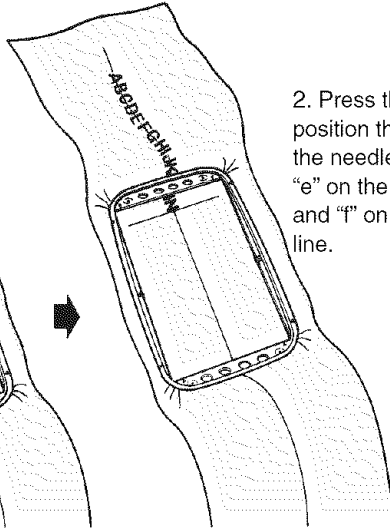
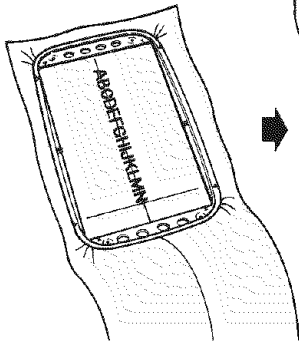


After re-hooping the fabric to match the LCD Screen

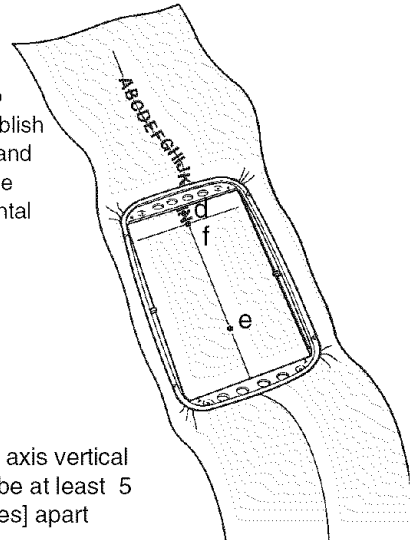
press  .
Install the embroidery frame onto machine.

Preparation of fabric

1. Change position of embroidery frame.



2. Press the LCD Screen to position the frame and establish the needle entry points "d" and "e" on the Y axis Vertical line and "f" on the X axis horizontal line.



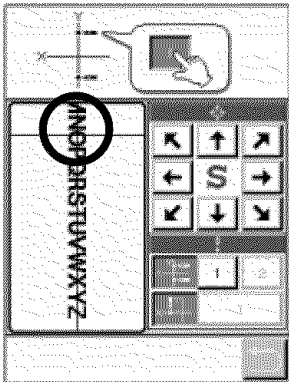
* Points (Y axis vertical line) must be at least 5 cm (2 inches) apart

15

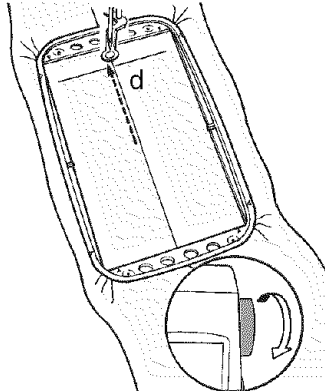
Operation of LCD screen for specifying needle entry points "d" "e" and "f"

1. Specifying point "d"

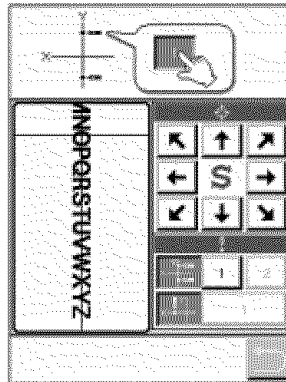
1 Touch screen at upper part of vertical line. This will move embroidery frame.



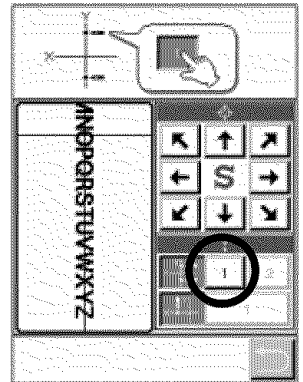
2 Turn handwheel to check that needle is positioned directly above Y axis vertical line.



3 Press needle position direction arrows so that needle point is directly above Y axis vertical line. For each needle entry point, be sure to turn handwheel to lower needle to verify that needle point is directly above Y axis vertical line.

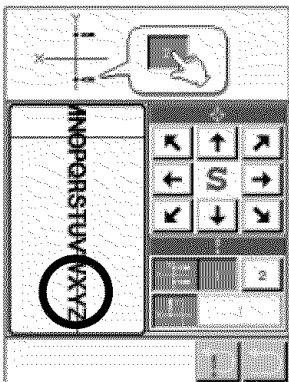


4 Once needle entry point is correctly specified on the Y axis vertical line, press position memory [1] for first point

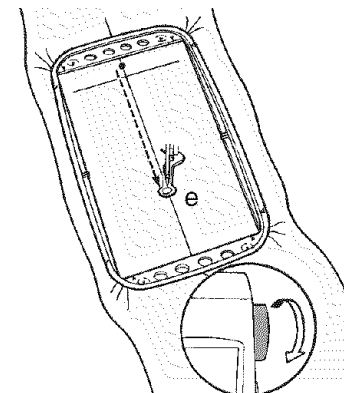


2. Specifying point "e"

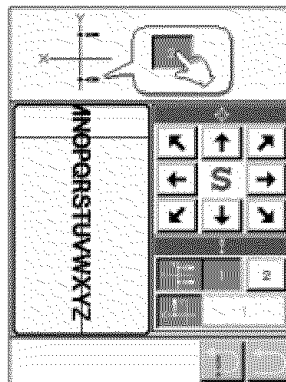
1 Touch screen at lower part of vertical line. This will move embroidery frame.



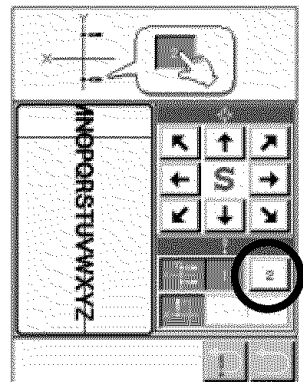
2 Turn handwheel to check that needle is positioned directly above Y axis vertical line.



3 Press needle position direction arrows so that needle point is directly above Y axis vertical line. For each needle entry point, be sure to turn handwheel to lower needle to verify that needle point is directly above Y axis vertical line.



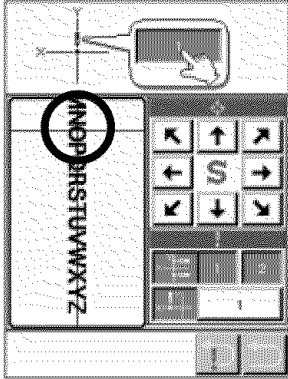
4 Once needle entry point is correctly specified on the Y axis vertical line, press position memory [2] for second point



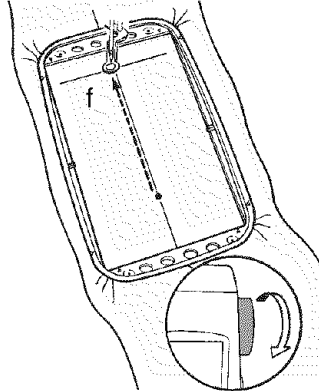
3. Specifying point "f"

Touch screen at far left point along X axis horizontal line.

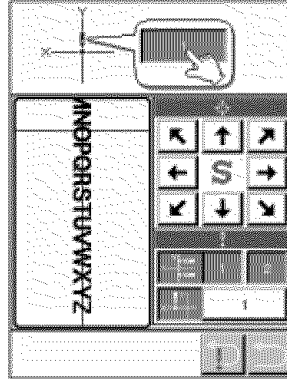
- 1 This will move embroidery frame.



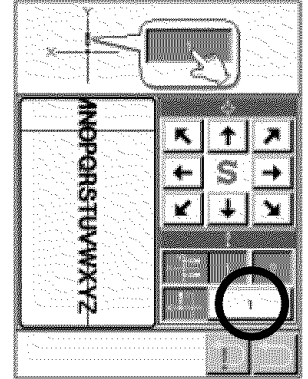
- 2 Turn handwheel to check that needle is positioned directly above X axis horizontal line.



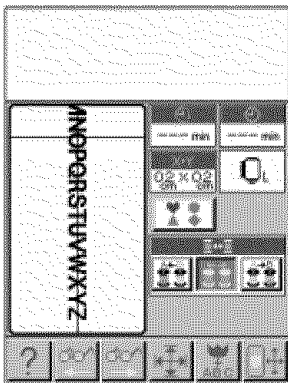
- 3 Press needle position direction arrows so that needle point is directly above X axis horizontal line. For each needle entry point, be sure to turn handwheel to verify that needle point is directly above X axis



- 4 Once needle entry point is correctly specified on X axis line horizontal line, press position memory [1] to enter position of X axis.

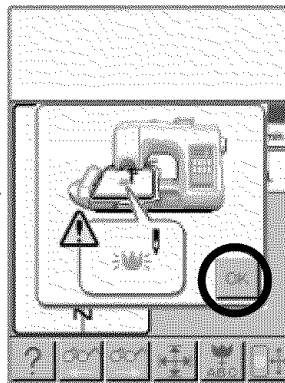


16 Start machine.




Sewing machine will embroider pattern located in designated position.

17

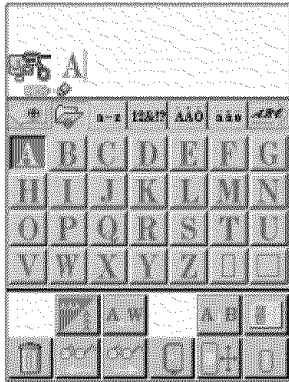


Press 

* To embroider subsequent part of letter text, press  and repeat data setting procedure from first step.

To embroider the next section of Multiple Hoop Letter Text.

18 Press subsequent letters.



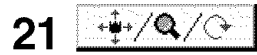
19 Press  pictogram.




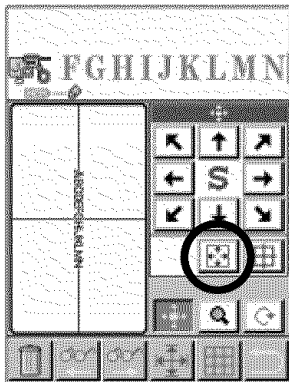
20 Press  pictogram.



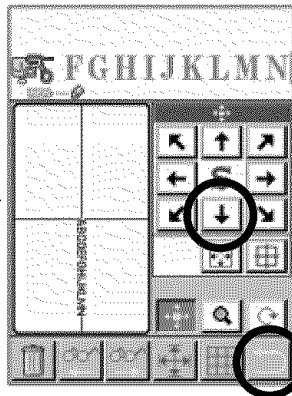
Press



22 Press  pictogram.

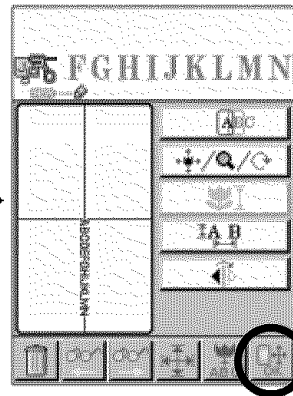


23 Press  arrow.

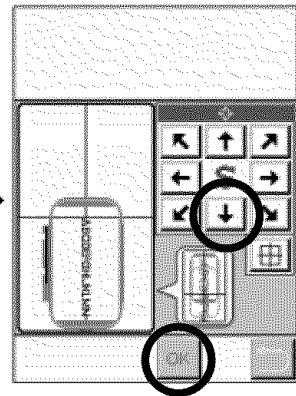


Press  key.

24 Press  pictogram.



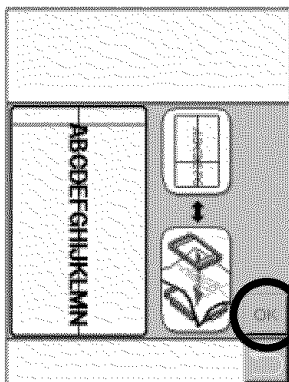
25 Designate location of letter text to be sewn next.



Press the down arrow to position the on-screen frame around the pattern to be sewn.

Press 

26 See top of next page for Preparation of Fabric Instructions.



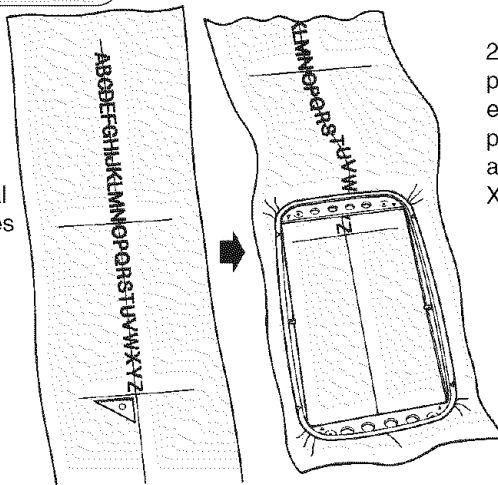
After re-hooping the fabric to match the LCD Screen,

press  Attach the embroidery frame onto machine.

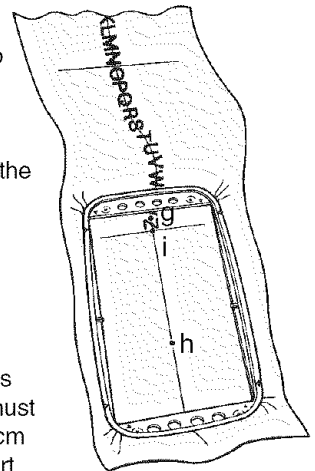
Preparation of fabric

1. Change position of embroidery frame.

Draw a horizontal line at right angles to vertical line according to the end of letters



2. Press the LCD Screen to position the frame and establish the needle entry points "g" and "h" on the Y axis Vertical line and "i" on the X axis horizontal line.



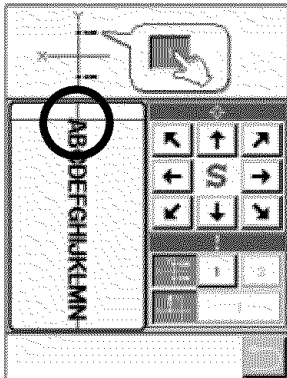
* Points (Y axis vertical line) must be at least 5 cm (2 inches) apart

27

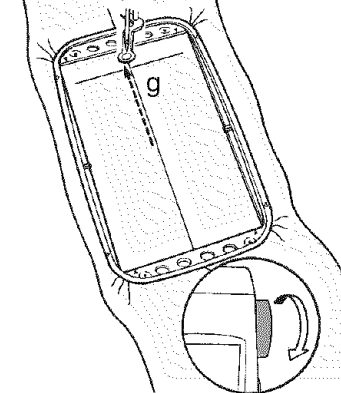
Operation of LCD screen for specifying needle entry points "g" "h" and "i"

1. Specifying point "g"

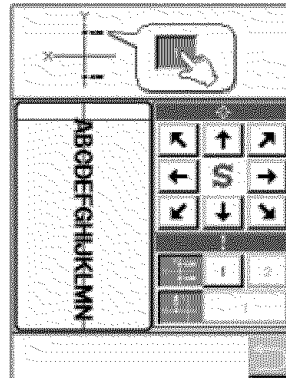
Touch screen at upper part of vertical line.
1 This will move embroidery frame.



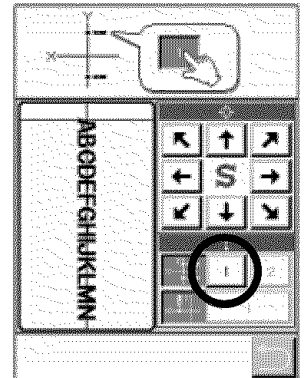
2 Turn handwheel to check that needle is positioned directly above Y axis vertical line.



3 Press needle position direction arrows so that needle point is directly above Y axis vertical line. For each needle entry point, be sure to turn handwheel to lower needle to verify that needle point is directly above Y axis vertical line.

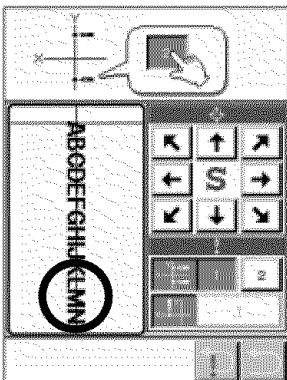


4 Once needle entry point is correctly specified on the Y axis vertical line, press position memory [1] for the first point.

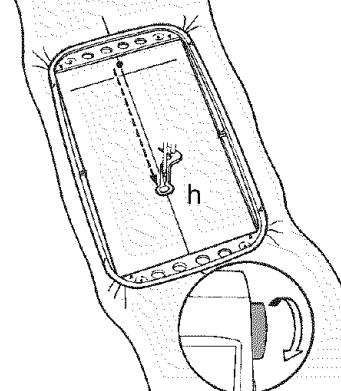


2. Specifying point "h"

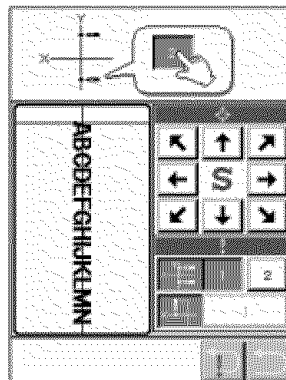
Touch screen at lower part of vertical line.
1 This will move embroidery frame.



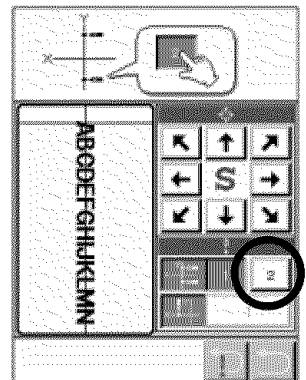
2 Turn handwheel to check that needle is positioned directly above Y axis vertical line.



3 Press needle position direction arrows so that needle point is directly above Y axis vertical line. For each needle entry point, be sure to turn handwheel to lower needle to verify that needle point is directly above Y axis vertical line.



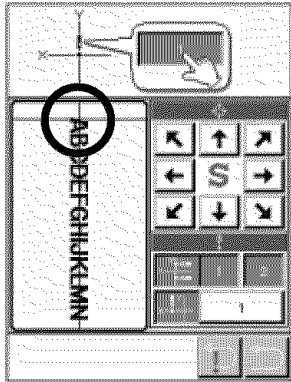
4 Once needle entry point is correctly specified on the Y axis vertical line, press position memory [2] for second point.



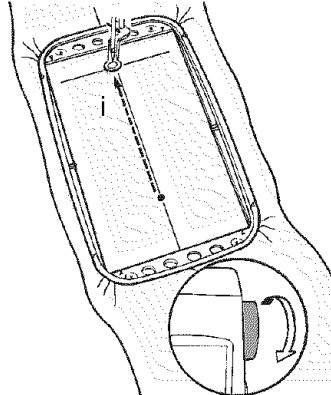
3. Specifying point "i"

Touch screen at far left point along X axis horizontal line.

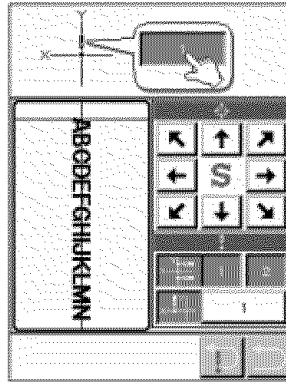
- 1 This will move embroidery frame.



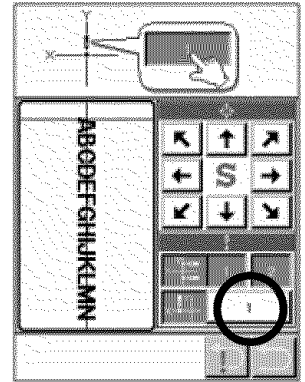
- 2 Turn handwheel to check that needle is positioned directly above X axis on horizontal line.



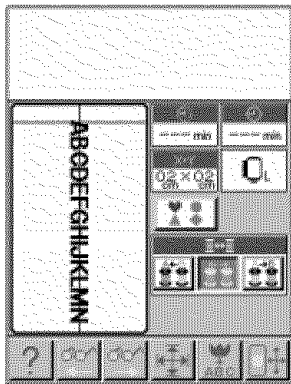
- 3 Press needle position direction arrows so that needle point is directly above X axis horizontal line. For each needle entry point, be sure to turn handwheel to lower needle to verify that needle point is directly above X axis horizontal line.



- 4 Once needle entry point is correctly specified on X axis horizontal line, press position memory [1] to enter position of X axis.

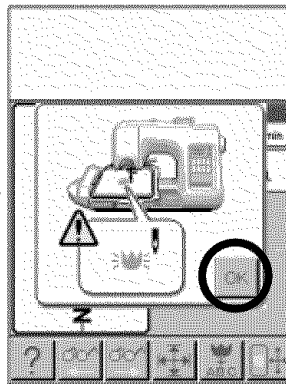



28 Start machine.



Sewing machine will embroider pattern located on designated position.

29

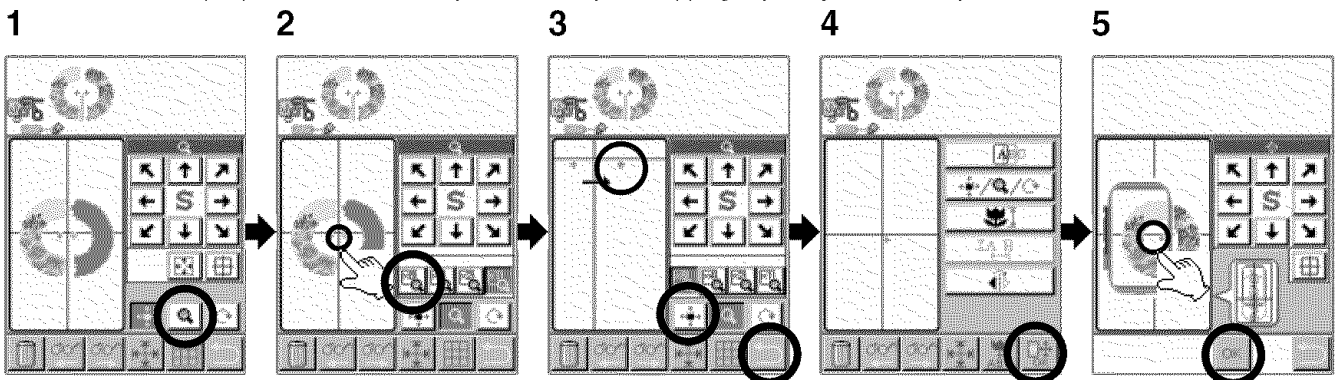




* To embroider subsequent part of letter text, press  and repeat data setting procedure from first step.


How to layout "Multiple Hoop" pattern of optional embroidery card.




Adjusting marks (+) are implemented in certain "Multiple Hoop".

In such case, multiple patterns can be easily combined by overlapping adjusting marks on layout screen.





Press  pictograms and layout so that the respective parts are roughly combined as one pattern.
Press  pictogram.

Press  pictogram.
Press adjusting mark position of the pattern on the screen to display 8 times zooming.

Press  and overlap adjusting marks with  pictograms.
Press  pictogram.

Press  pictogram.

Press position to set embroidery frame on the screen.

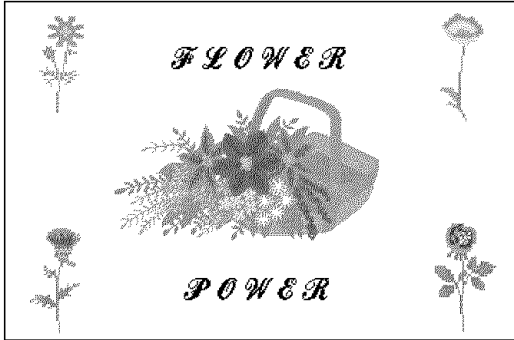
Press  pictograms and finely adjust the position of embroidery frame.
Press  pictogram.

6 Multiple hoop Embroidery [Example 1] step 9

Multiple Hoop Embroidery [Example2]

Multiple hoop embroidery may also be easily sewn by joining 4 or more adjacent hoopings. The following instructions and example illustrates how to bring together all the elements to create a 250 x 450 mm design. The particular example uses built-in Floral Designs and built-in lettering. However, in actuality a Multiple Hoop Design can be virtually limitless in size and can be made up of built-in letters, built-in floral, borders and data from optional embroidery cards and unique data created in a Computer with the optional Professional Sew-Ware Version 2.0.

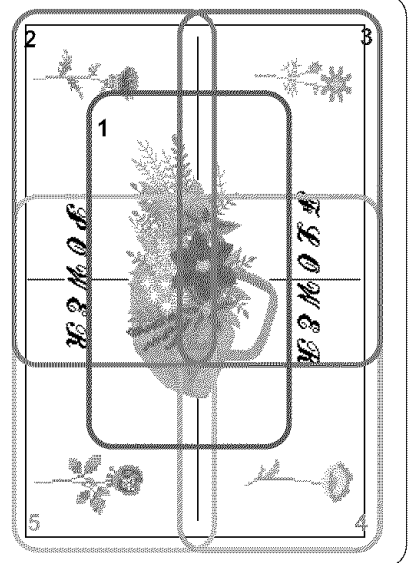
Example)



Preparation of fabric

1. Draw cross lines so that the lines make right angles in the center of fabric.
2. Plan design keeping in mind number of hoopings required.

In this case, 5 hoopings are required.

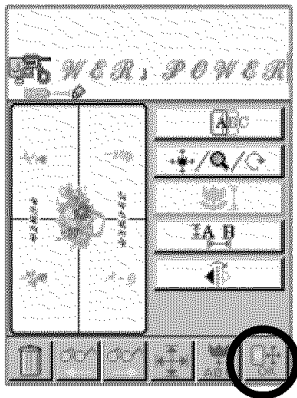


1 Select pattern of **2** . **2** Press pictogram. **3** **Press** **4** **Press**

5 Press pictogram. **6** **7** Select pattern of **13** . **8** Press pictogram .

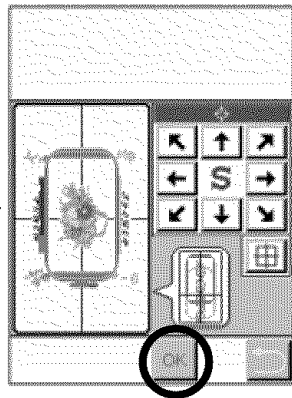
Press arrow () in repetition until screen appears.

9 Insert and position
"Flower Power" Text



Press  pictogram .

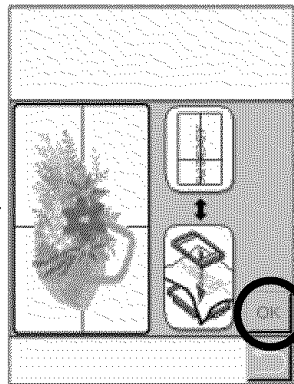
10 Designate location
of pattern to be
sewn first.




Press the arrow keys to
position the on-screen
frame around the pattern to
be sewn first.

Press 

11



* Follow the sequence offered
by the on-screen helpful
messages and pictograms. It is
important to hoop the fabric per
the LCD Screen and to carefully
define the Y and X axis lines so
all portions of the design align.

When instructed,
press  key.
Install embroidery frame
on machine.

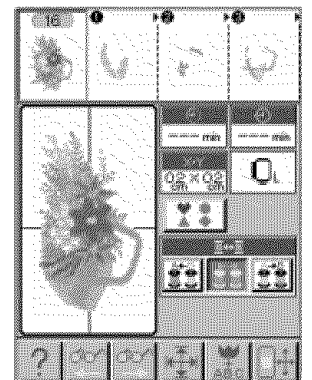
12 Use touch-screen to establish needle entry points.

1 Determine first point on
Y-axis line.

2 Determine second point on
Y-axis line.

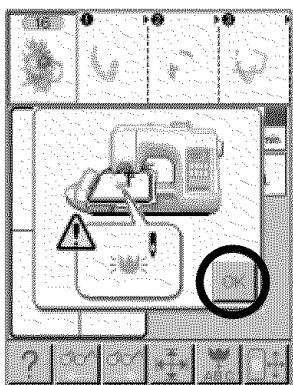
3 Determine first point on
X-axis line.

13 Start machine.



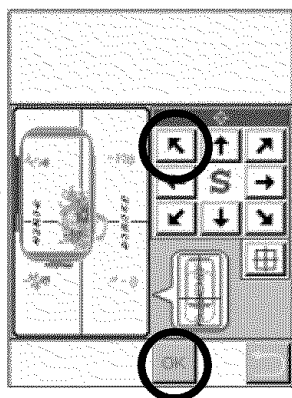
Sewing machine will embroi-
der the pattern located in
designated position.

14



Press 

15 Designate location of
the next pattern to be
embroidered.



Press the arrows to position the on-screen
frame around the pattern to be sewn next

Press 

**This example was abbreviated
as by this point you have
learned enough to easily
layout and sew this simple
Multiple Hoop Design.**

Continuous Embroidery

The Continuous Embroidery Package consists of Continuous Embroidery frame and Continuous Embroidery card.

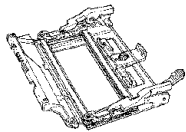
For most successful operation:

Please read all instructions in the instruction manual and this instruction sheet before using.

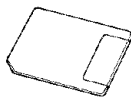
Name of parts.

Continuous Embroidery frame

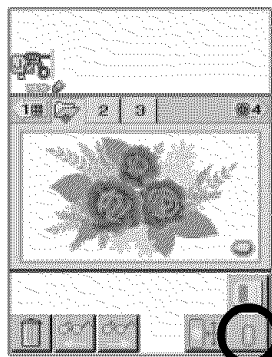
#5006 Continuous Embroidery card




Use this frame only for performing Continuous-Embroidery.

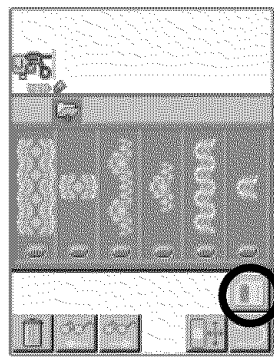



1 Insert the card.

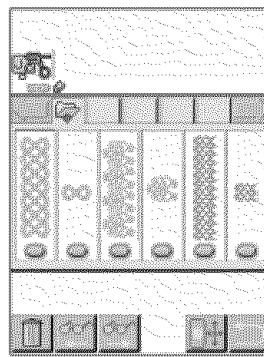


On the Embroidery screen press  pictogram.


Built-in patterns.



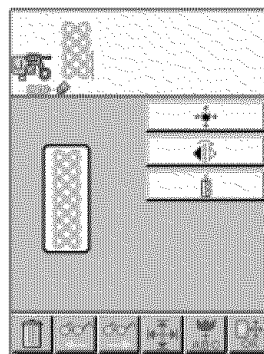
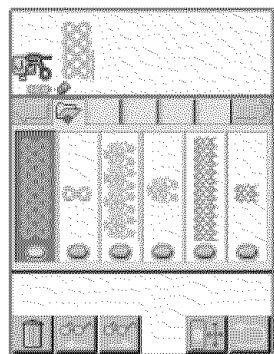
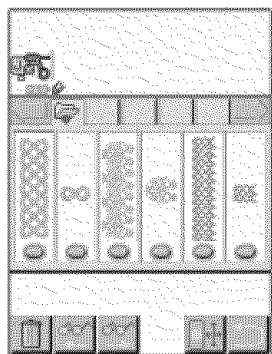
Insert the Continuous Embroidery card #5006. Press  pictogram.



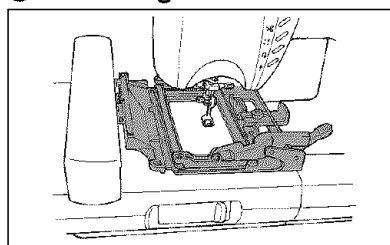
2 Select pattern.

Press  pictogram of the pattern that you wish to sew.

Press  pictogram.

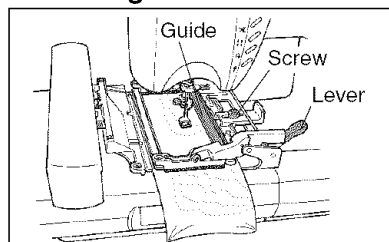


3 Installing the Continuous Embroidery frame



Fully raise embroidery presser foot and place the embroidery frame under it.

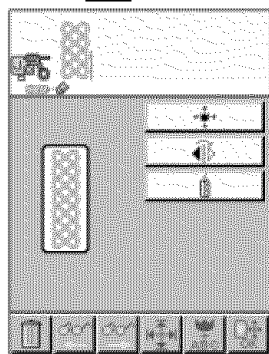
4 Setting the fabric



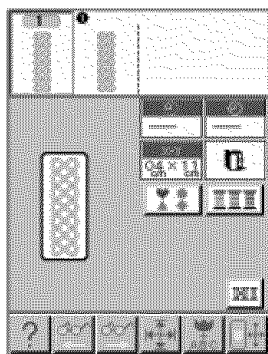
Raise the lever and lift the upper frame. Securing fabric in embroidery frame. Loosen the guide screw. Position fold edge against guide. Tighten the guide screw. Lower the lever to lower the upper frame.

5 Start sewing.

Press  pictogram.



Lower presser foot and press start button.



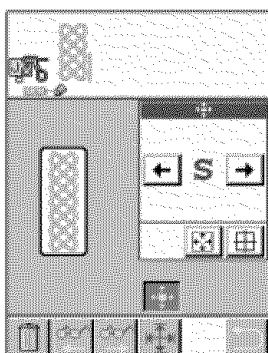
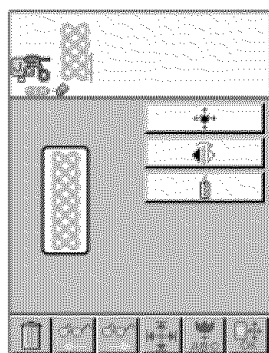
6 Connecting the patterns.



At the end of the 1st pattern, the machine will sew a "V" mark. 2nd unit of pattern is aligned with the lower end of the "V" mark. Turn handwheel to drop the needle on end of "V" MARK. Press the Start/Stop Button. The 2nd pattern is connected and is sewn.

Explanations of other effective functions

A. Change location of pattern



Press  pictogram.

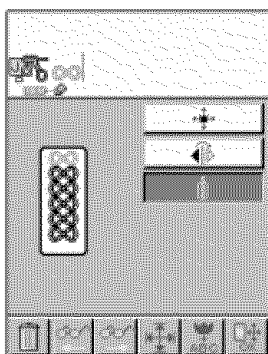
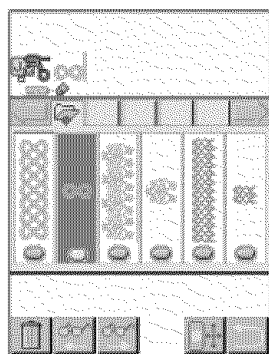
Press   pictogram.

Location will move to left or right of the embroidery frame.

Press  pictogram.

Press  pictogram.

B. Connecting small patterns



Use the small pattern to adjust the overall length of the Continuous Design.

Press  pictogram.

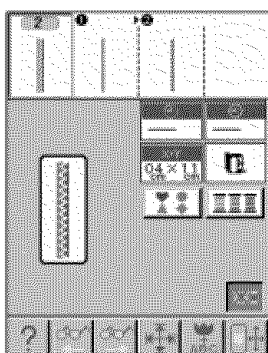
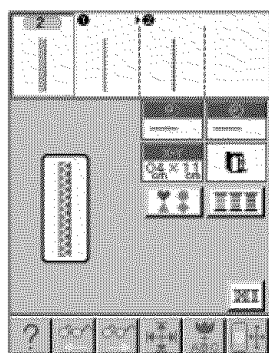
Small patterns will be connected automatically within the limits of the Continuous embroidery frame.

C. Mirroring pattern



Pattern will be mirrored automatically within the limits of the Continuous embroidery frame.

D. Monochrome-izing pattern



Press  pictogram

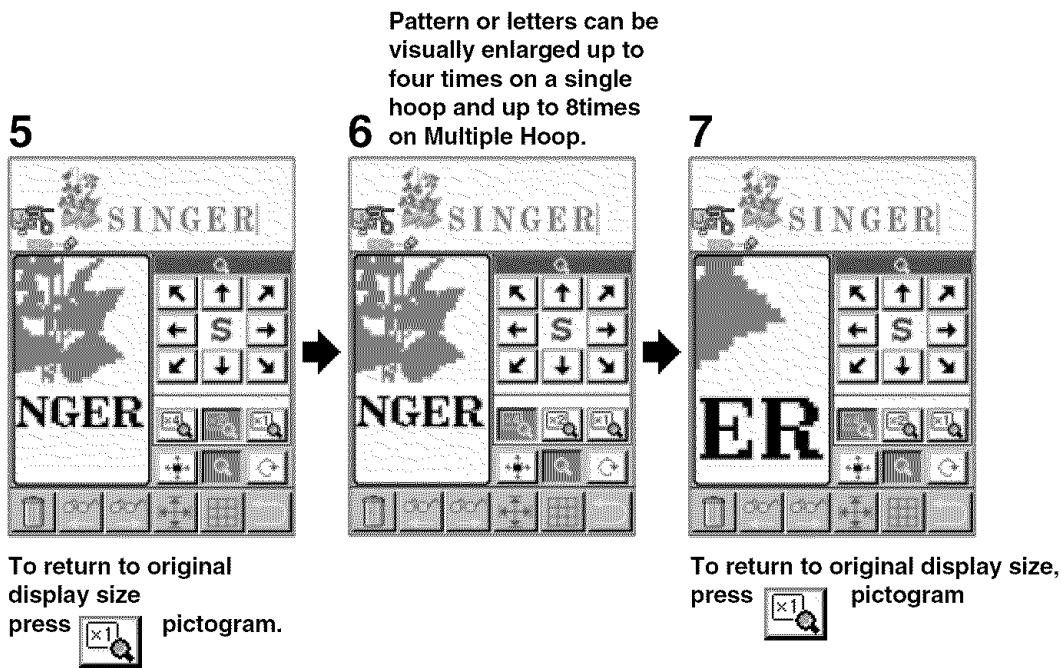
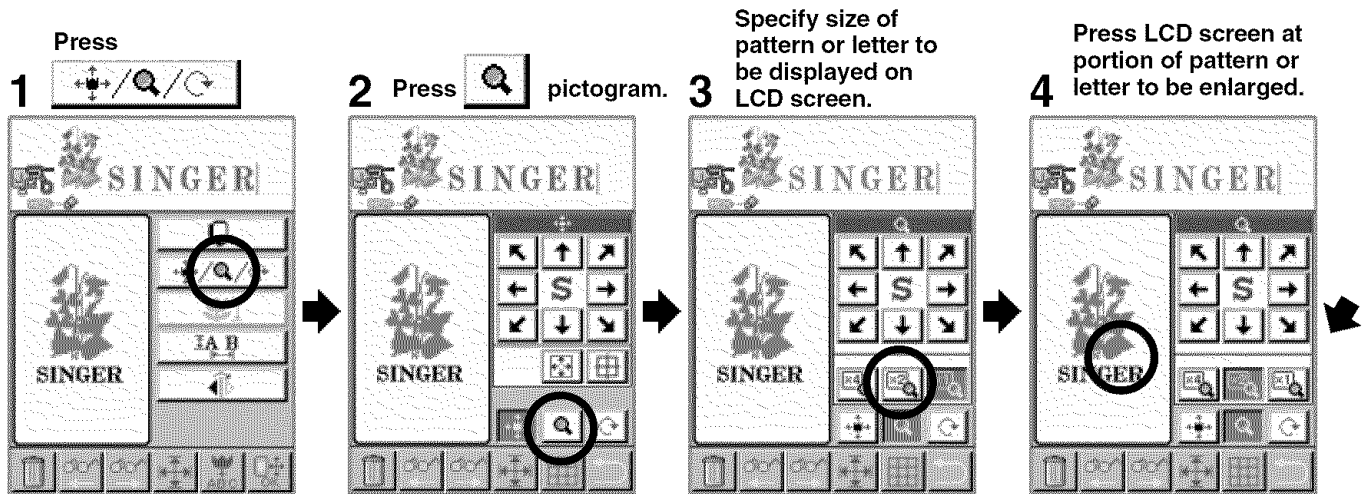
The pattern of two or more colors changes to single color pattern.

It can sew without exchange of thread continuously.

Zooming (On-Screen Enlargement) function

This is an on-screen function that is used to visually enlarge patterns and letters for easy positioning and placement of combination and multiple hoop designs. Embroidery Patterns can be overlapped or precisely joined using the Zoom function.

* This is a visual on-screen function and will not increase the sewn size of the embroidery.



A press on will return screen to previous one.

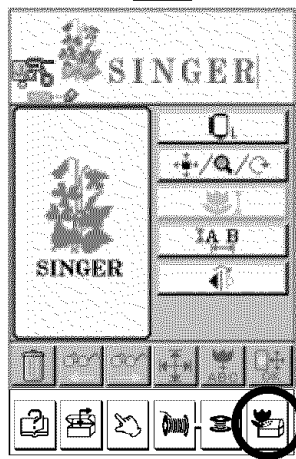
* Patterns or letters can be edited when enlarged.

Power Fail and Temporarily saving patterns and letters

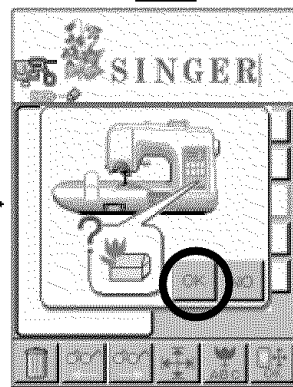
If there is a power failure or you turn off power to machine during selecting/editing/sewing of embroidery your pattern will be saved for approximately 10 to 15 minutes. After that time the screen will be restored to the initial screen. However, if you need to take a break from your sewing or plan to be away for an extended timeframe, you can save the exact position of your sewing.

Before turning power off:

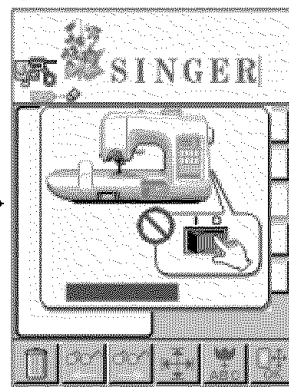
1 Press  key.



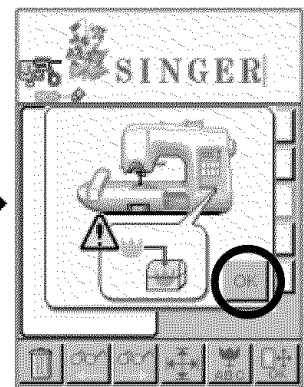
2 Press  pictogram.




3



4



A press on  will return screen to previous one.

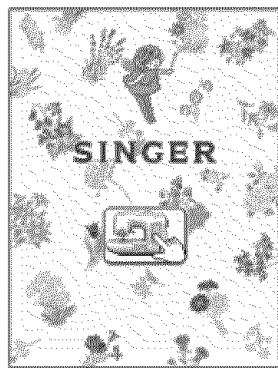
* As long as a pattern is selected, pattern can be temporarily saved from any screen.

* **IMPORTANT** : Do not turn off power to machine while machine is saving patterns and the Layout Screen.

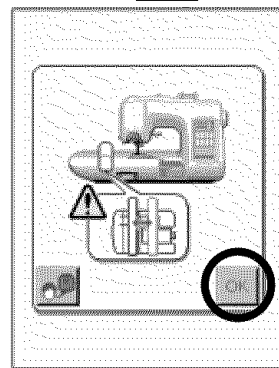
After turning power back on:

Upon turning off / then on power to the machine, the following screen will appear and ask you whether you wish to continue the previous operation.

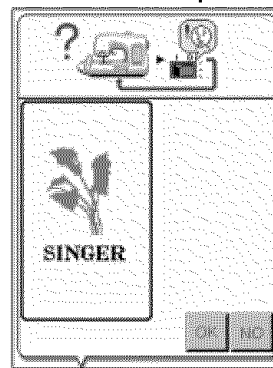
1 Touch LCD screen.



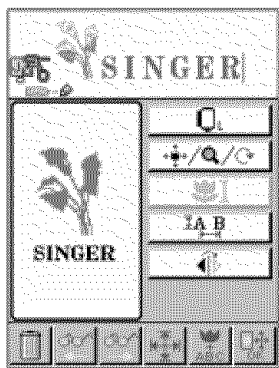
2 Press .




3 Clicking  will return to the previous

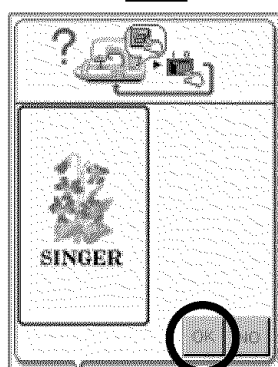


4

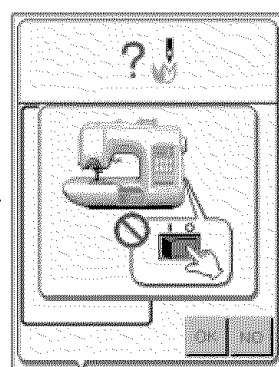


Click on  (in the case of temporary) will show following screen. If the operation has not been temporarily saved, the Pattern Selector Screen will be displayed.

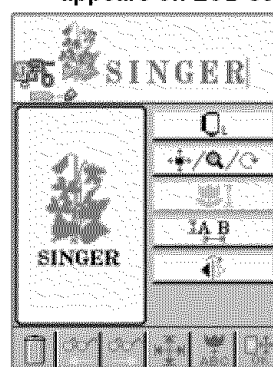
4 Press .



5



6



Screen that has been temporarily saved appears on LCD screen.

* In the case where power to machine is re-turned on and a pattern that has been temporarily saved is activated, pattern will be cleared by turning off the power to the machine. To save pattern for an extended period of time, it is recommended to store it in a "attern case" (Long Term Memory) (Refer to pages 95 and 96 for how to store patterns in pattern case.)

Storing combined patterns or letters in memory

How to use  key.


* There are 32 Pattern Cases within which you can store data.


* Data on as many as 120 different patterns can be “stored in” and “taken out from” each pattern case.


* Maximum number of patterns that can be stored in pattern cases may be less than 120 and maximum number of pattern cases that can be used may vary according to amount of data contained in each pattern.

To save a pattern:

* Do not turn off power to machine while saving message appears on LCD screen.


1 Press  key.

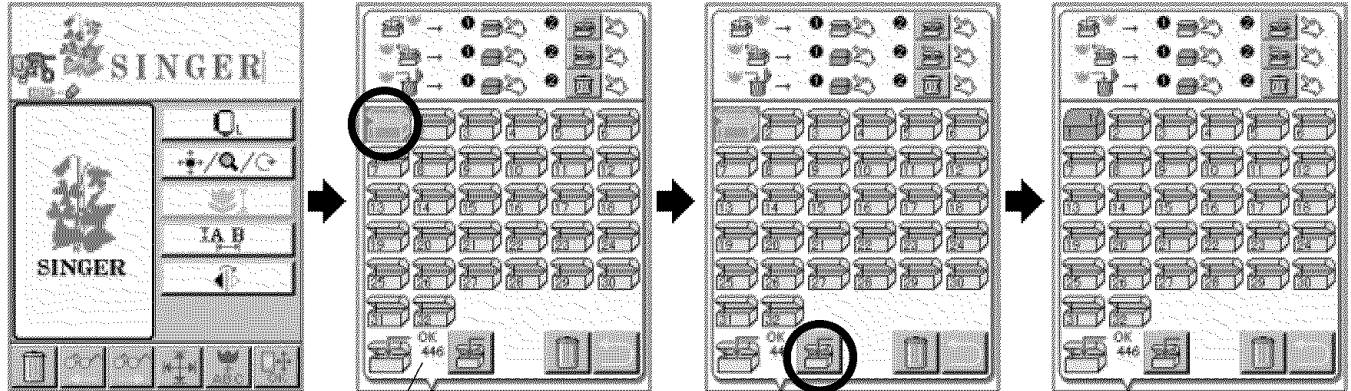
2 Press  in which a pattern is to be saved.

3 Press  pictogram.


4


Remaining capacity of memory is indicated.


Press , and screen will return to previous one.





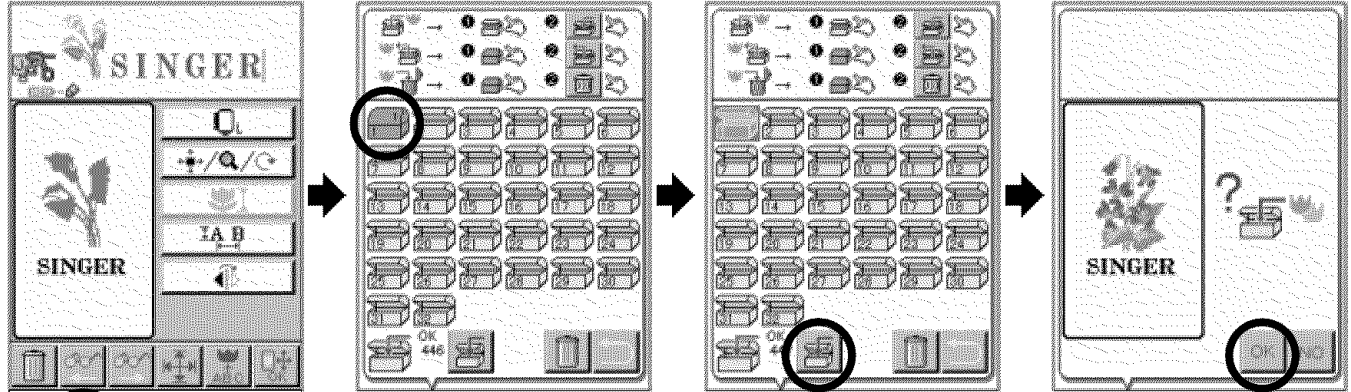
To overwrite a pattern:

1 Press  key.

2 Press  in which a pattern to be overwritten is stored.

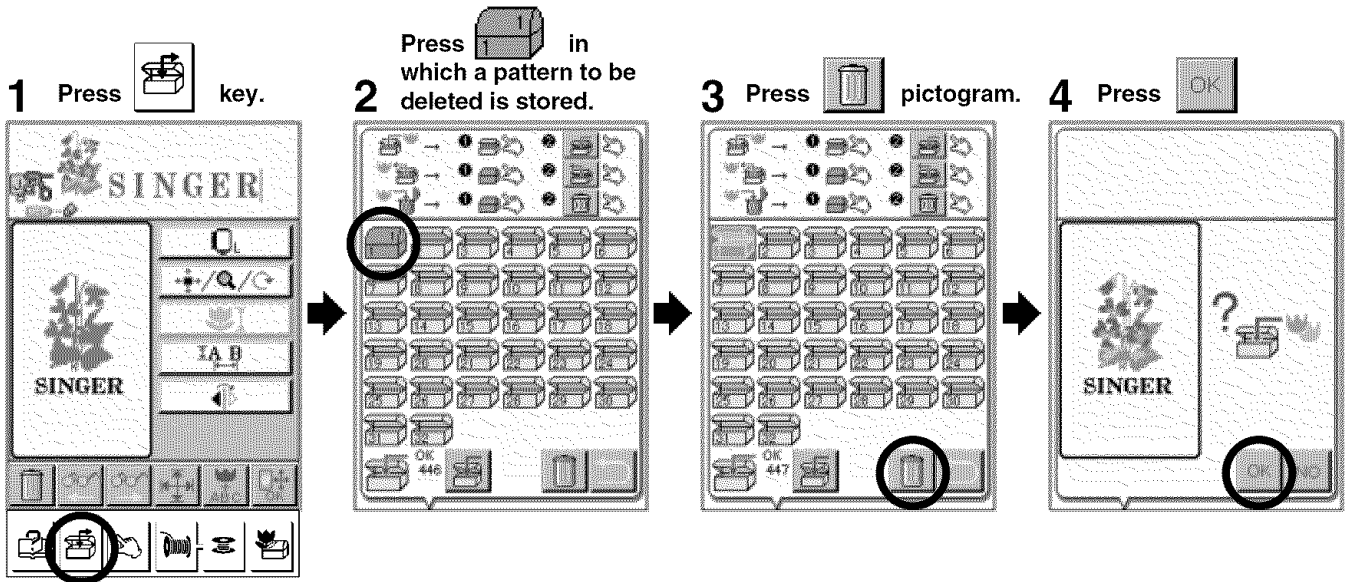
3 Press  pictogram.

4 Press  if you wish to overwrite pattern illustrated.
Press  if you do not wish pattern overwritten.



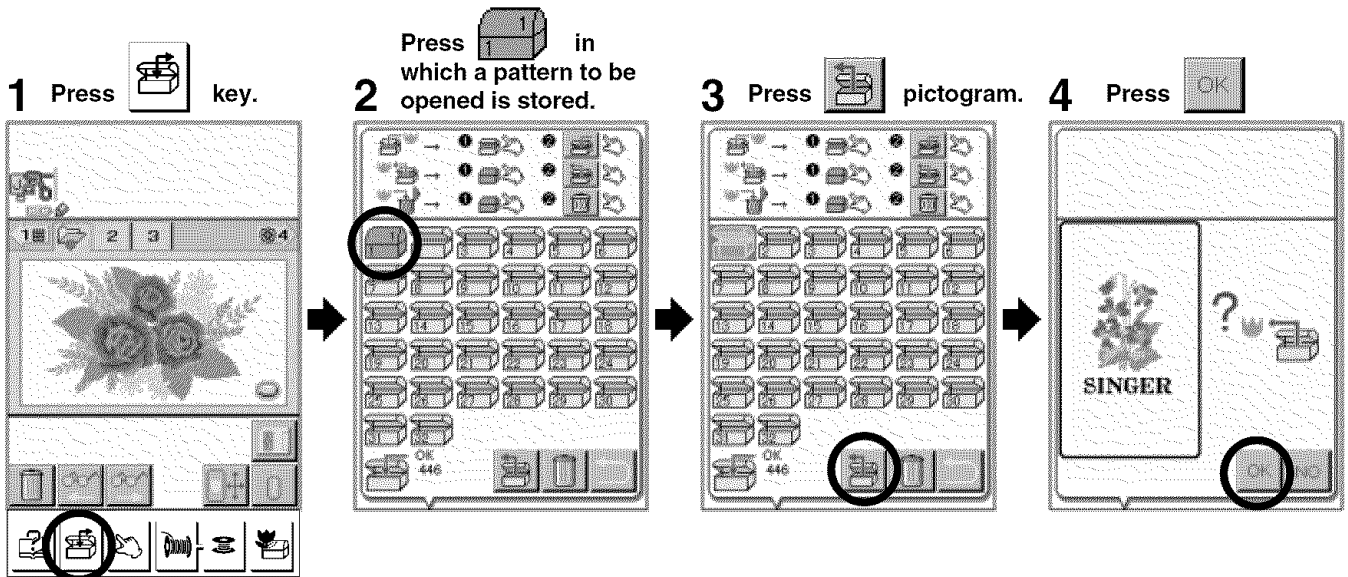
To delete a pattern:

* Do not turn off power to machine while message "Under deleting" appears on LCD screen.



To open a saved pattern

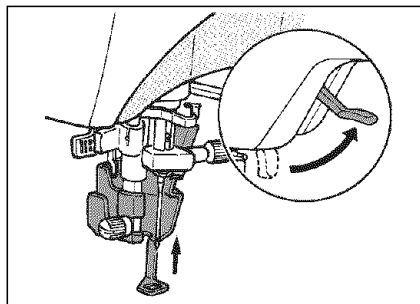
* Data cannot be taken out from pattern case on layout screen. Take it out on selection screen.



If thread breaks during embroidery

To re-start embroidery from position at which thread has broken

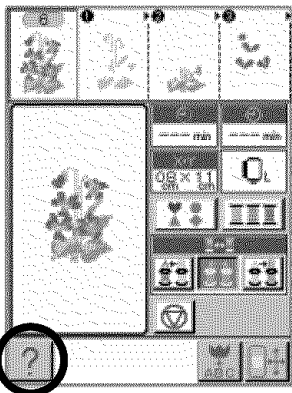
1 Stop machine and raise needle and embroidery foot.



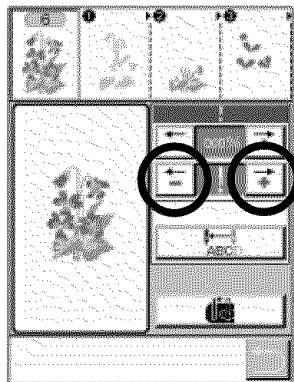
When needle thread has broken, re-thread sewing machine. When bobbin thread has broken, follow steps described below:

- [1] Cut needle thread and remove embroidery frame from machine.
- [2] Re-set bobbin thread and re-install embroidery frame.

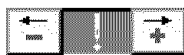
2 Press pictogram.



3 Press pictos to return needle several stitches before needle breakage point.

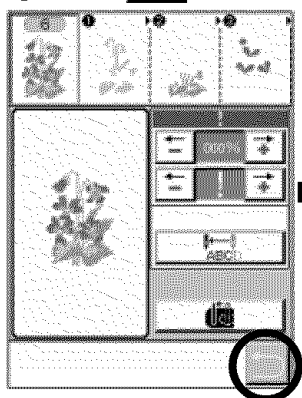


This pictogram is used to return/advance needle by ratio of the number of stitches with respect to total number of stitches of pattern. Indication of color parts on the upper screen changes according to %.

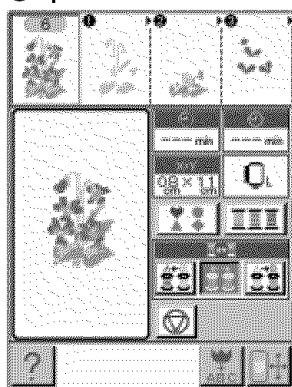


Every press on pictogram returns the needle in increments of 10 stitches. Every press on pictogram moves the needle forward in increments of 1 stitch. (The number of stitches corresponding to one press on pictogram can be changed. See page 117)

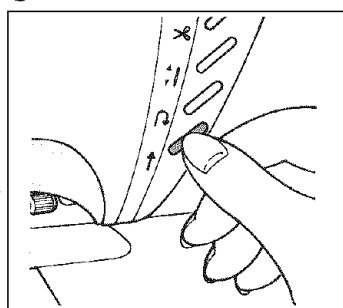
4 Press pictogram.




5 Screen returns to previous screen.

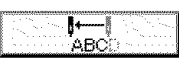



6 Lower embroidery foot and start the machine.



To re-sew a pattern from start

1 Press  pictogram.

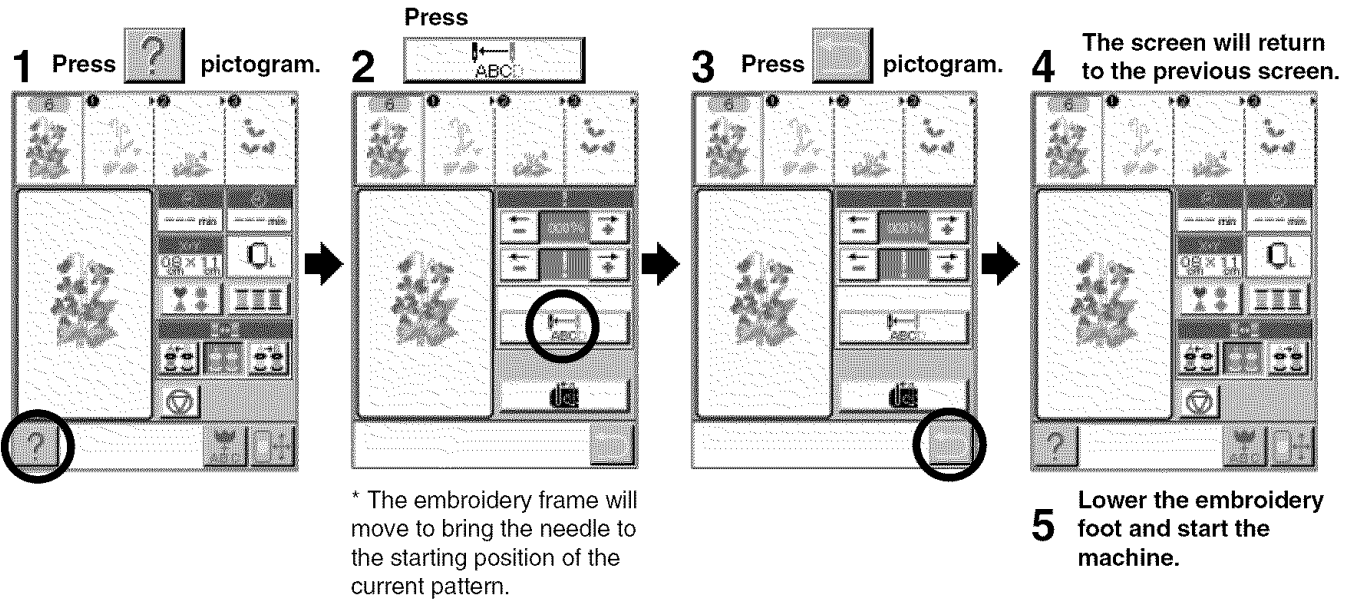
2 Press  pictogram.

3 Press  pictogram.


4 The screen will return to the previous screen.


5 Lower the embroidery foot and start the machine.

* The embroidery frame will move to bring the needle to the starting position of the current pattern.



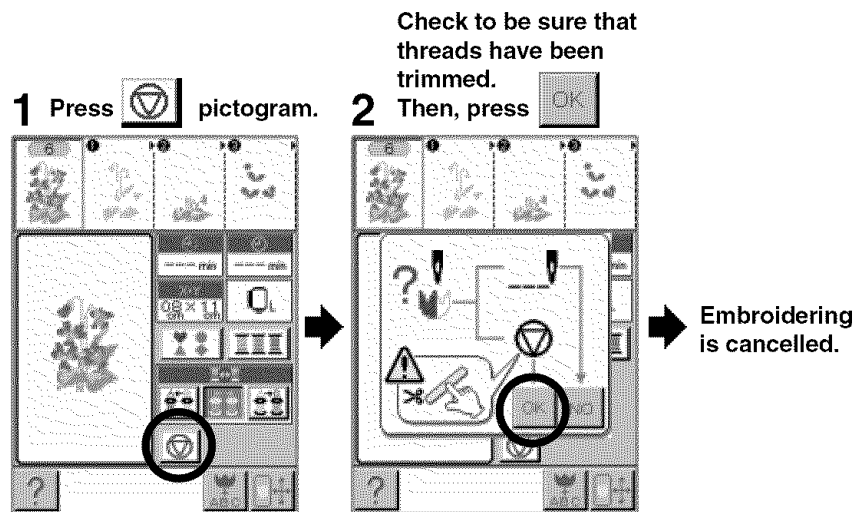
To discontinue embroidery

1 Press  pictogram.

2 Then, press  pictogram.

Check to be sure that threads have been trimmed.

Embroidering is cancelled.

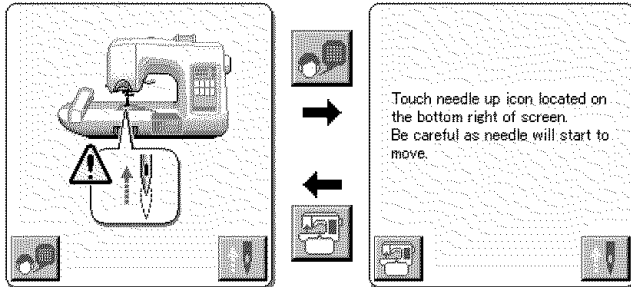


Helpful messages

Messages are given on LCD screen in the case where a faulty operation is done. Take a corrective measure according to relevant messages.

Press **OK**, **NO** or **Back**,

and previous screen will be restored.

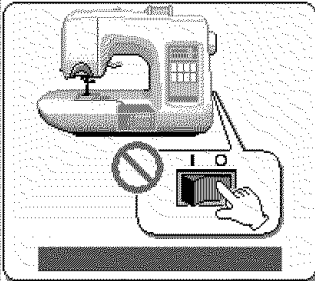


★ : No language icon

| | |
|--|-----------------------------------|
| | Prohibit |
| | Check or Caution |
| | Can not or Failed to do something |
| | Need decision of OK or NO |
| | Please wait |

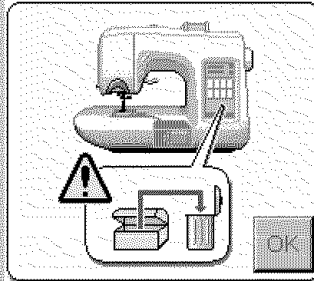
1. Saving(file) related

1
★



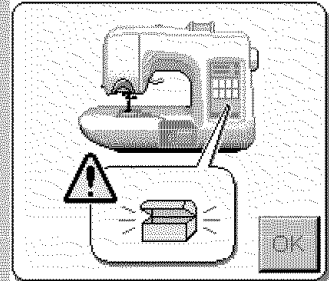
Now saving.
* Do not turn power off.

2



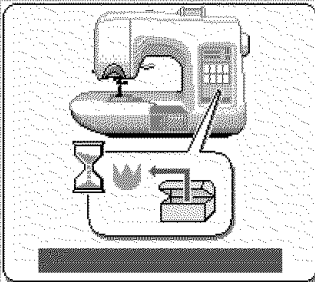
Memory is full.
Delete unnecessary box.

3



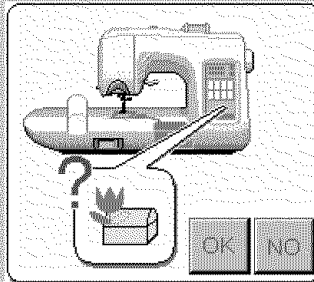
Nothing saved in box.

4
★



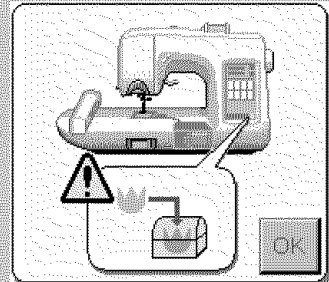
Now recalling.

5



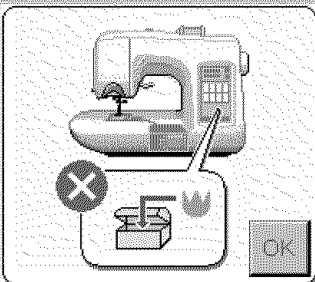
Previously selected pattern is remaining. Delete all?

6



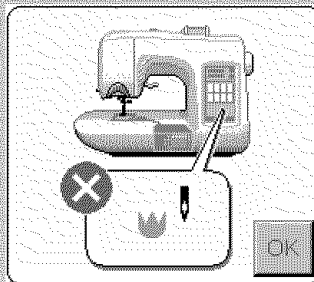
Completion of temporary saving.

7



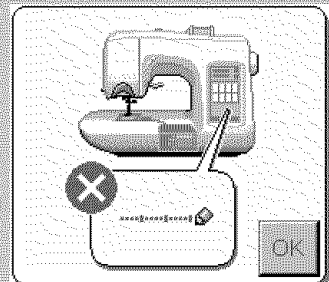
Pattern(s) cannot be saved.

8



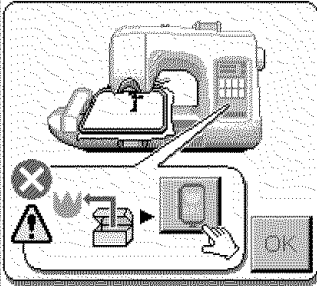
Cannot use this pattern.

9



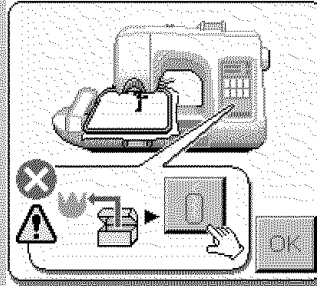
Memory error.
Memory is full.

10



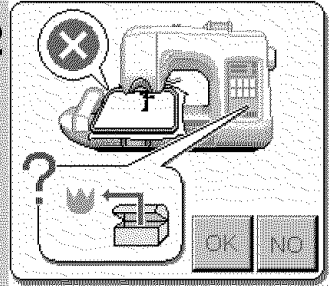
Recall in combination embroidery mode.

11



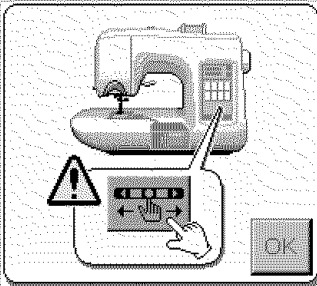
Recall in continuous embroidery mode.

12



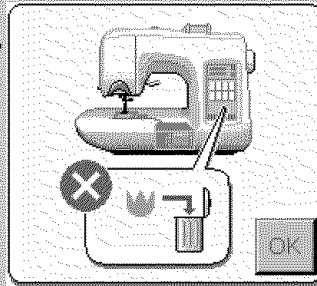
Embroidery frame size is different. Recall pattern(s)?

13



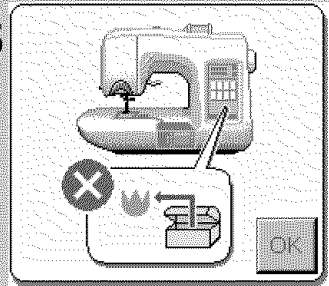
Power was turned off while saving pattern. All settings are lost. Please re-enter settings.

14



Can not delete pattern(s).

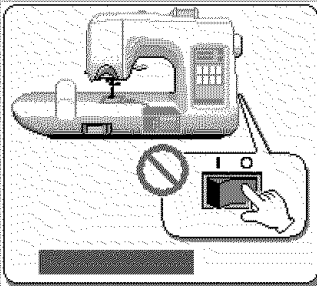
15



Can not recall pattern(s).

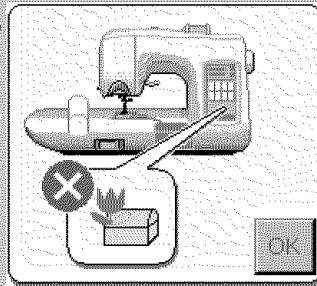
16

*



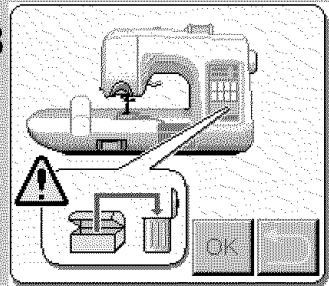
Do not turn off power to machine.

17



Cannot retrieve temporary saved pattern.

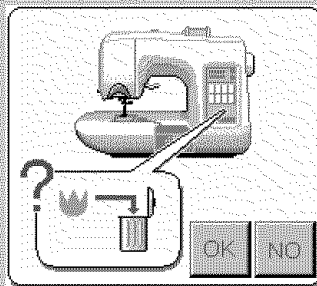
18



Delete saved pattern(s).

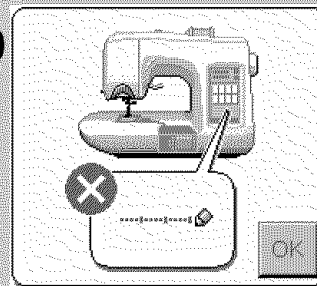
2. Pattern sewing related

19



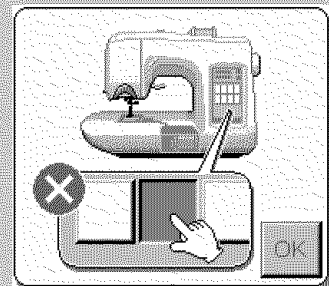
Delete all patterns?

20



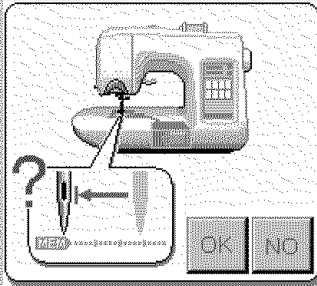
Memory error. Memory is full.

21



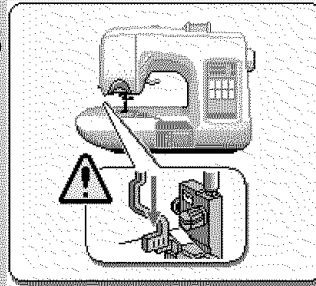
Machine does not accept this operation.

22



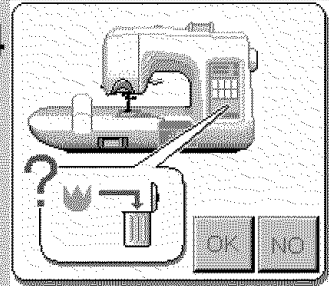
Start again from beginning of design?

23



Lower buttonhole lever.

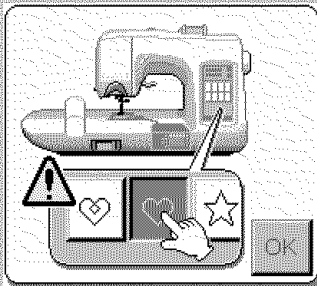
24



Pattern has been selected. Delete all?

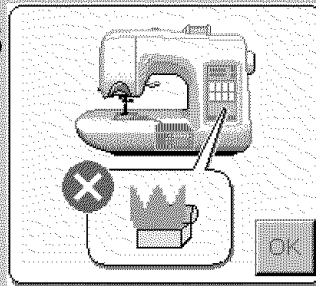
3. Top thread/Threading related

25



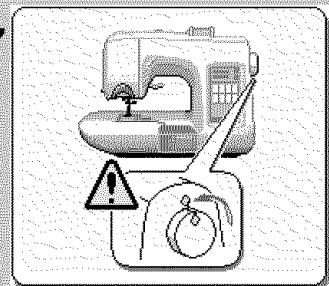
Select pattern.

26



Data is too large, while attempt to saving.

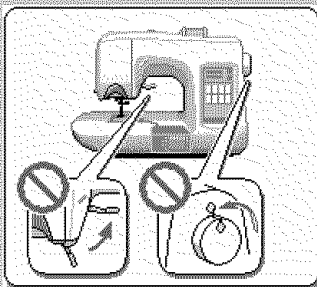
27



Turn handwheel counterclockwise to raise needle until you hear beep sound. Or turn handwheel to align reference mark.

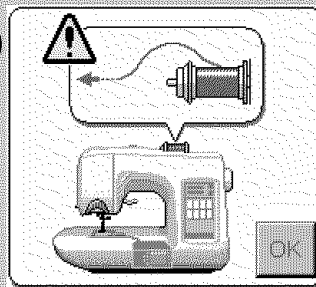
28

*



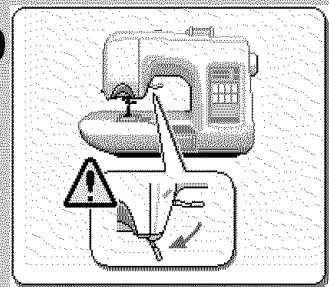
Now threading machine. Do not turn handwheel or raise presser foot.

29



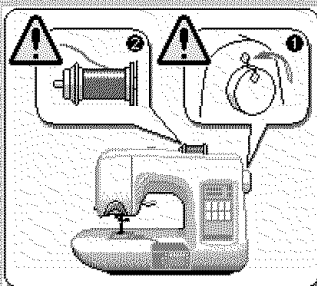
Incomplete threading. Confirm top thread.

30



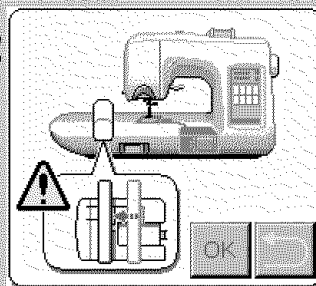
Lower presser foot.

31



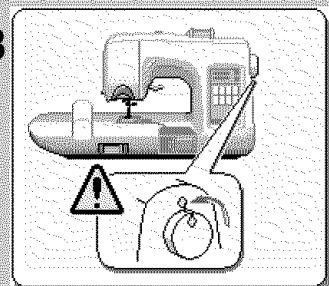
Cannot thread needle in this position. Rotate handwheel until you hear beep sound or rotate handwheel so that it will align to engraved mark. Then rethread machine.

32



Move carriage then threading machine.

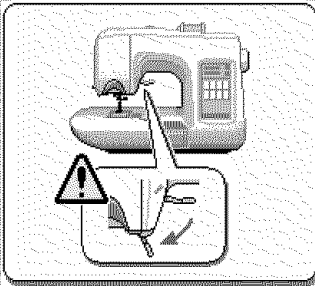
33



Turn handwheel counterclockwise to raise needle until you hear beep sound. Or turn handwheel to align reference mark.

4. Presser foot related

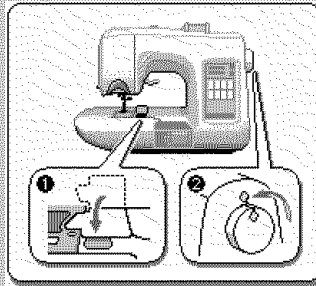
34



Lower presser foot.

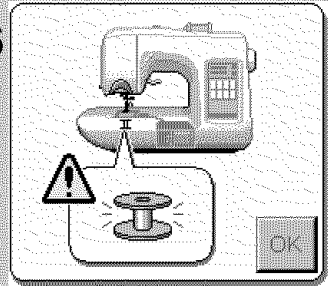
5. Bobbin thread related

35



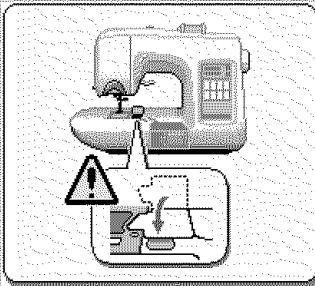
Close bobbin winding cover. Rotate handwheel until you hear beep sound.

36



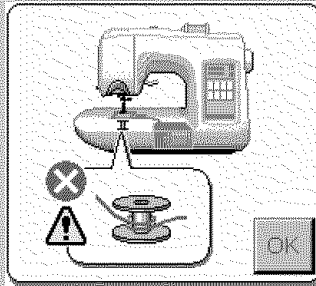
Check bobbin.

37



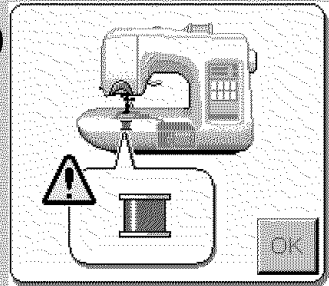
Bobbin winding cover is open. Close bobbin winding cover.

38



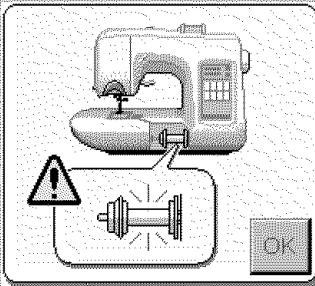
Bobbin winding failed. Check bobbin thread.

39



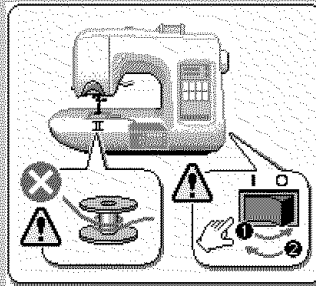
Remove remaining bobbin thread.

40



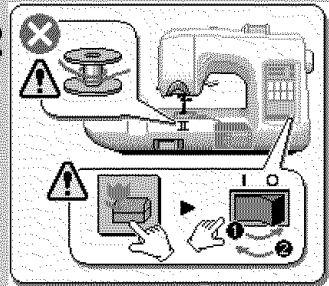
Lower spool thread empty. Replace lower thread spool.

41



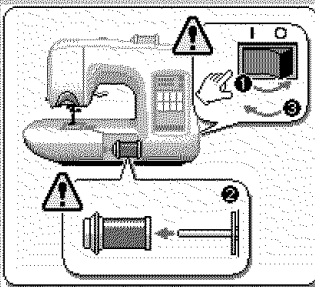
Turn off power to machine, then on again.

42



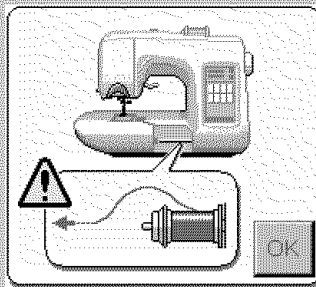
Temporarily save data first and then turn power to machine off then on again.

43



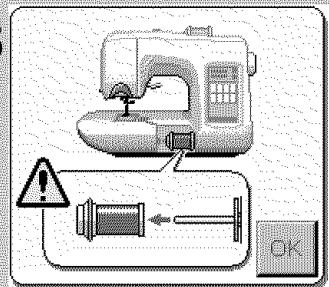
Cannot wind bobbin from top spool. Turn off power to machine, then remove bottom thread spool and turn on power again.

44



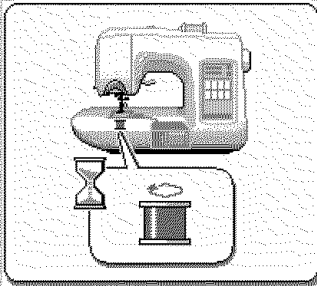
Place bobbin thread spool onto bottom spool pin.

45



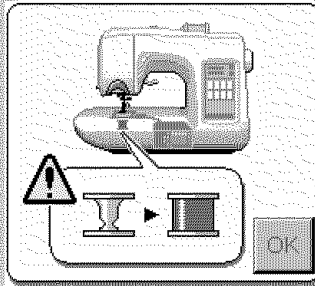
Remove bottom thread spool.

46



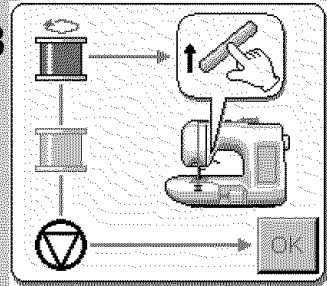
Now winding bobbin thread.

47



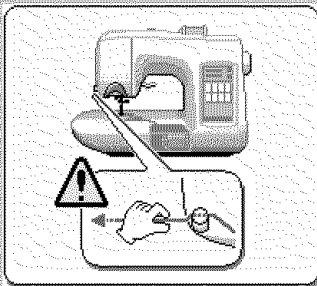
Bobbin thread winding completed.

48



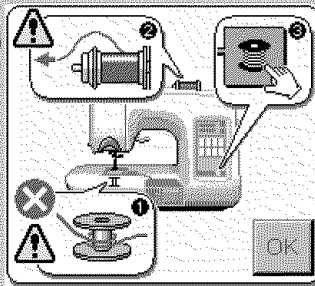
Bobbin thread winding interrupted. To continue winding press start/stop button. To stop winding press [OK] key.

49



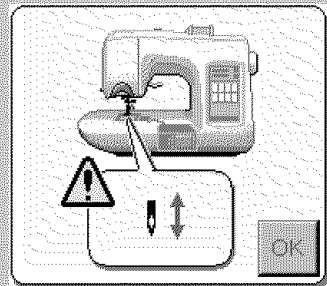
Re-secure thread so thread is taut.

50



Re-thread machine and wind bobbin again.

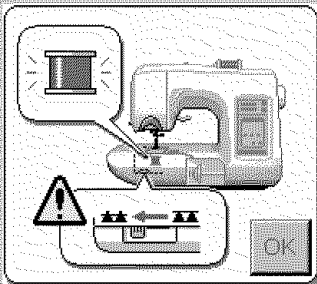
51



Be careful. Needle starts to move.

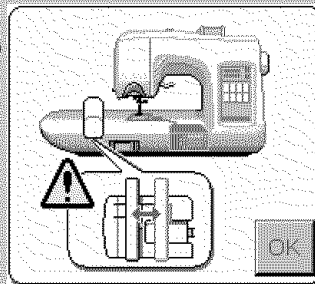
6. Setting embroidery unit

52



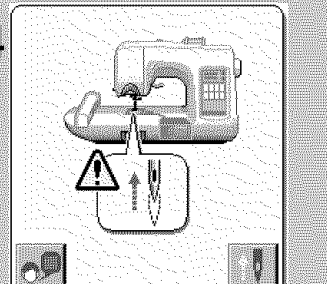
Bobbin thread winding completed. Raise feed dog.

53



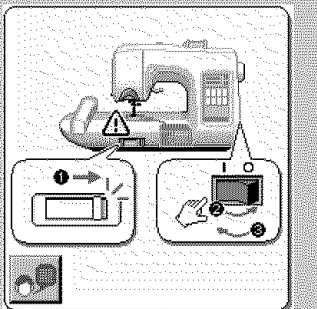
Carriage will move to starting position.

54



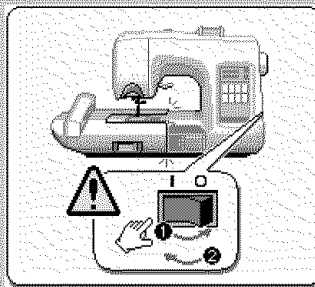
Touch needle up icon located on the bottom right of screen. Be careful as needle will start to move.

55



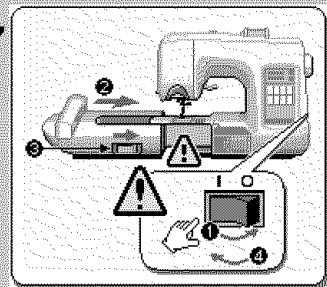
The embroidery unit is not fully installed into main machine slot. Slide the lever to the right until it clicks. Then turn off and turn on the power to machine.

56



Embroidery unit is installed. Turn off and on power to machine.

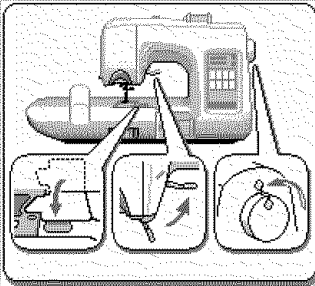
57



Embroidery Unit has come loose. Turn off machine, re-install embroidery unit and turn on machine.

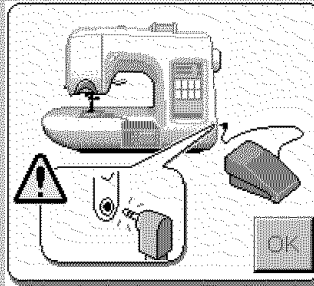
7. Trouble related

58



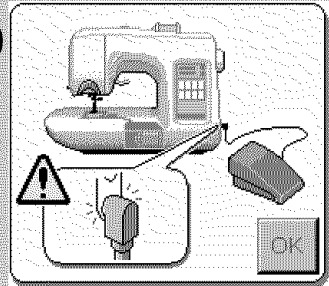
(when turn on power machine)

59



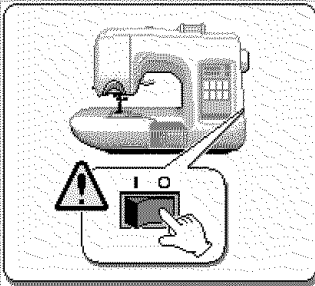
Foot controller is unplugged.

60



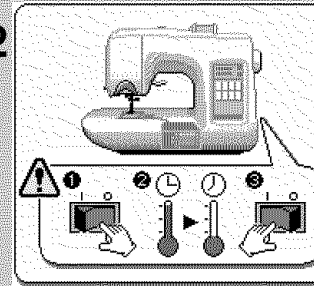
Foot controller is plugged-in.

61



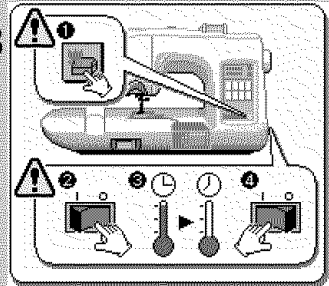
Motor does not rotate.
Turn off power to machine.

62



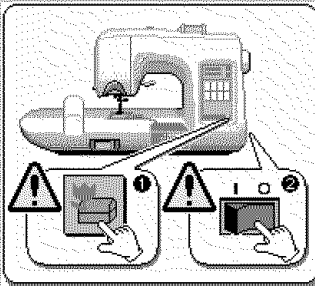
Safety system has been activated
due to temperature rise of motor.
Turn off power to machine. Then
wait until machine cools down and
turn on power to machine again.

63



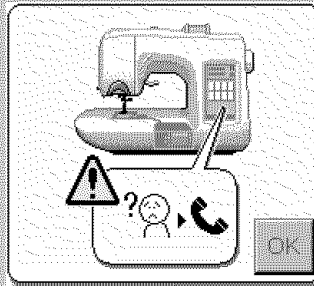
Due to temperature rise machine has
stopped. Save patterns in temporary
saving, then turn off power to
machine. Wait until machine cools
down, then turn on power to machine
again.

64



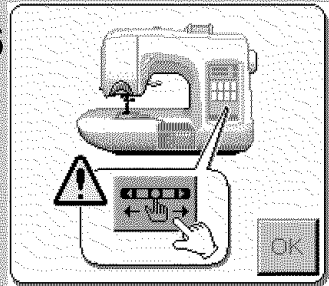
Safety system has been activated
due to temperature rise of motor. Temporarily
save pattern(s) and turn off power
to machine. Then wait until machine
cools down and turn on power to
machine again.

65



Machine need to be readjust-
ed.
Call your dealer or service
center.

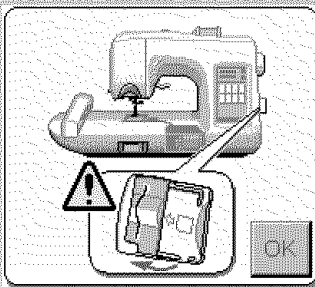
66



Power was turned off while
saving pattern. All setting are
lost.
Please re-enter settings.

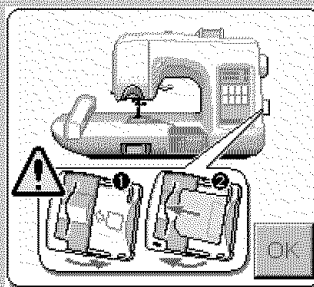
8. Card related

67



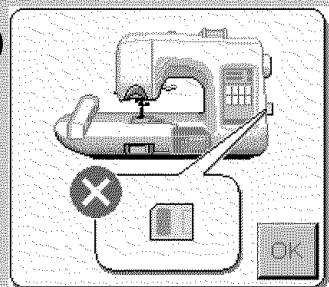
Close card slot cover.

68



No card is inserted.
Insert card.

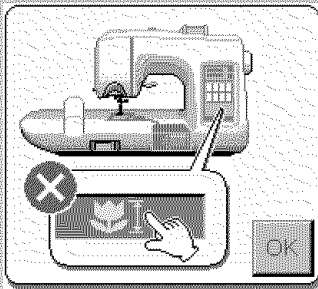
69



This card can not be used.
Change it to another one.

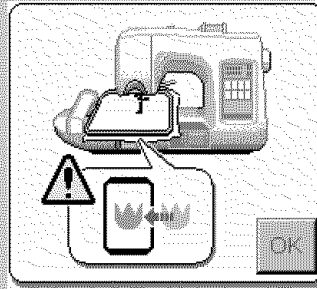
9. Embroidery sewing/ editing

70



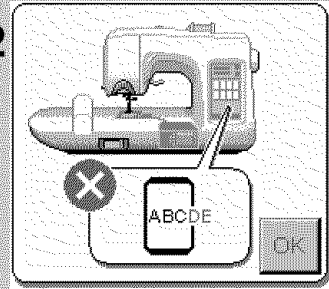
Size of this pattern cannot be changed.

71



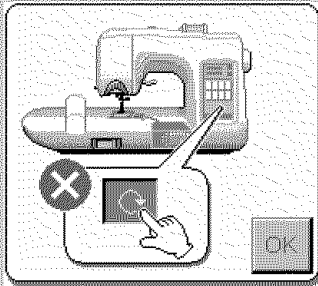
Pattern located outside of hoop.
Move pattern inside of hoop.

72



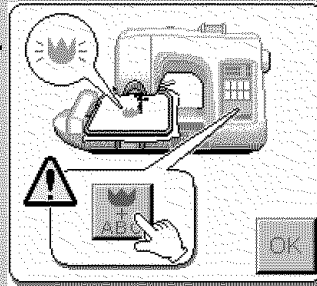
No more letters can be combined.

73



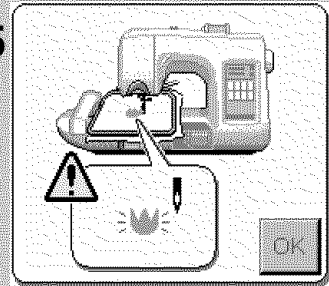
Can not be rotated to this angle.

74



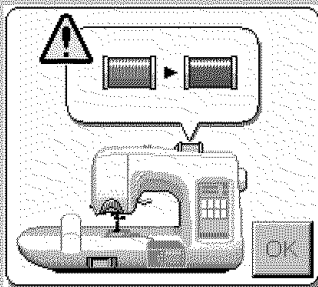
Sewing completed.
Press combination key to return.

75



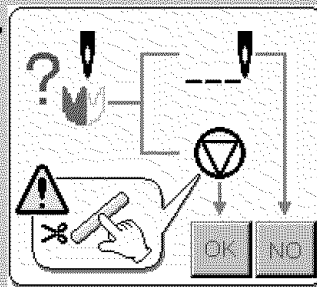
All pattern(s) sewing completed.

76



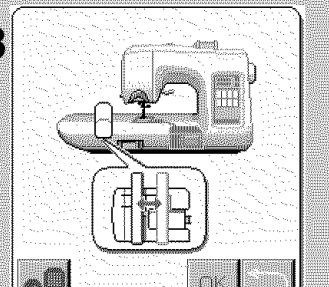
Change upper thread to a different color.

77



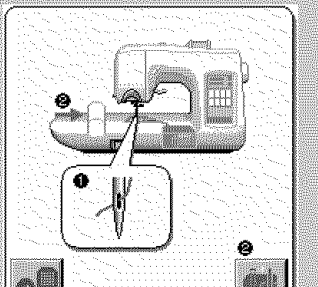
Do you wish to discontinue sewing? To discontinue sewing press thread cutter key to secure thread.


78



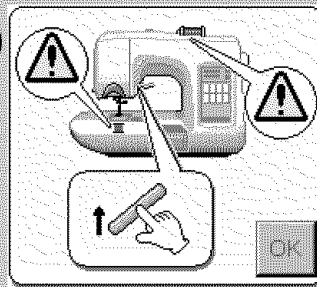
When using needle threader, the frame needs to be moved. Touch OK icon to move frame.

79



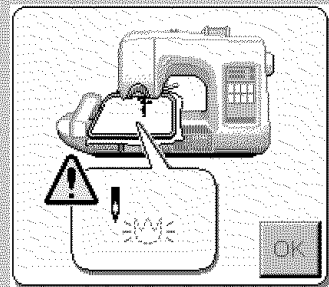
Frame was moved. Now thread needle. Then touch  icon to move frame back to original position.

80



Start sewing pattern from interrupted point.
Press Start switch after checking upper and bobbin thread.

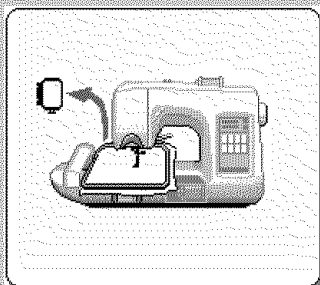
81



There are no patterns to be sewn after input 3 points for Multi-Hoop embroidery.

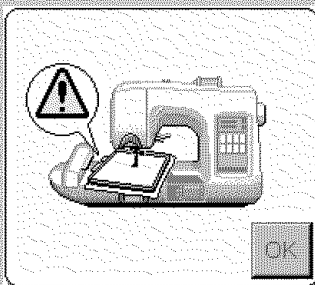
10. Embroidery frame related

82



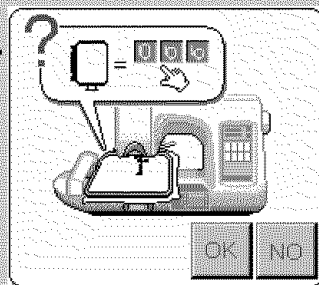
Remove embroidery frame.

83



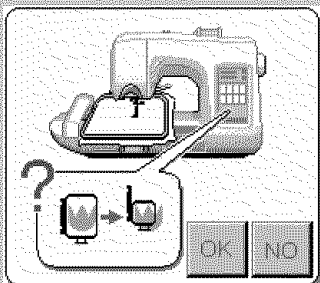
Embroidery frame has come loose. Reinstall frame.

84



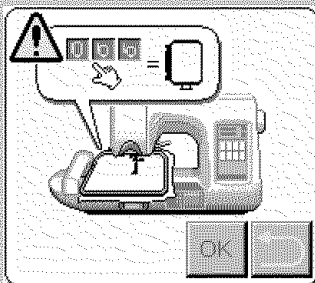
Change setting to installed hoop.

85



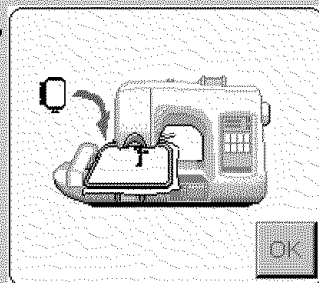
Does not fit into hoop.
Do you wish to change hoop?

86



Install selected embroidery frame first, then press **OK** key.
To return press **STOP** key.

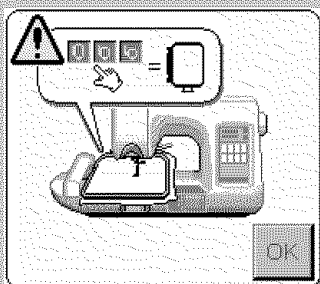
87



Install embroidery frame onto the machine.

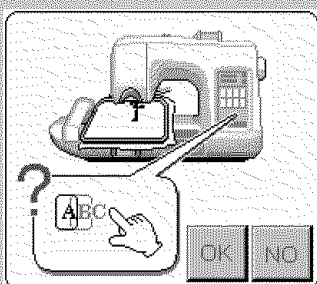
11. Multi-hoop embroidery

88



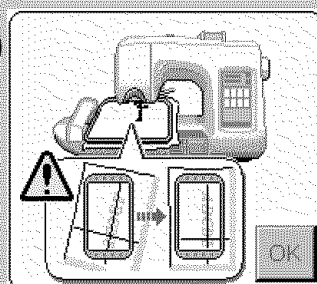
Install selected embroidery frame.

89



This pattern can be used for Multiple hoop only. Select pattern?

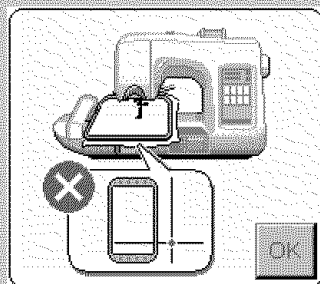
90



The fabric is not properly secured into frame.

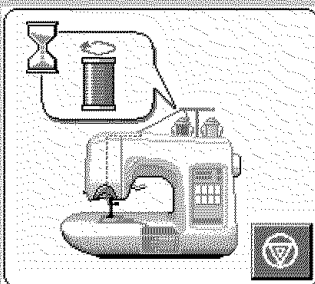
12. Thread changer

91



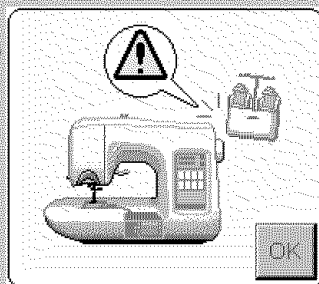
The cross point of X/Y axis lines are not positioned within frame area.

92

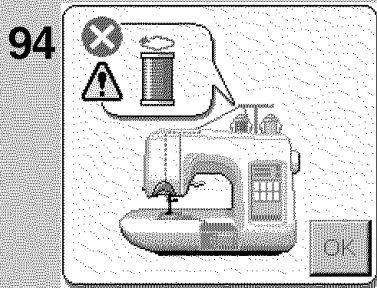


Emergency rewinding STOP function.

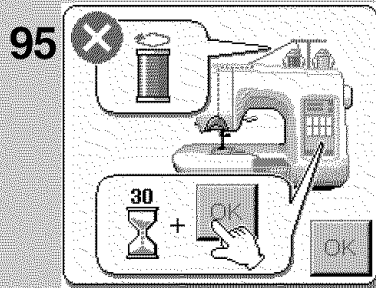
93



"Thread exchanger is not attached".

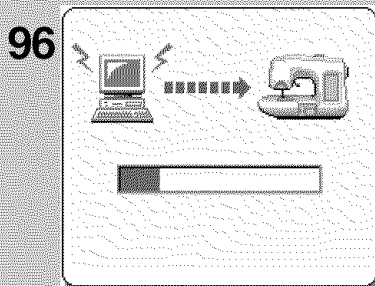


Check the exchanger device.

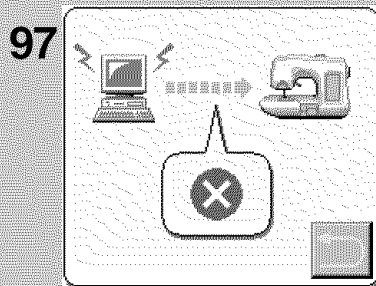


Wait 30 second and touch OK.

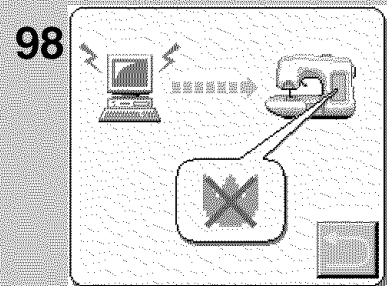
13. Download



Data is being transferred.

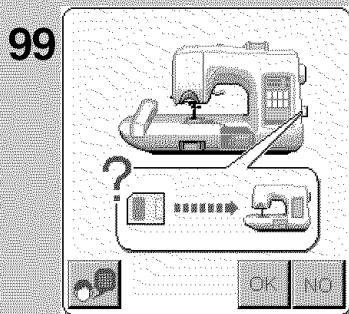


Cannot transfer data.

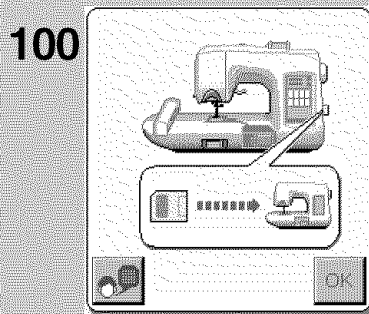


The data from PC cannot be used for sewing machine.

14. Update

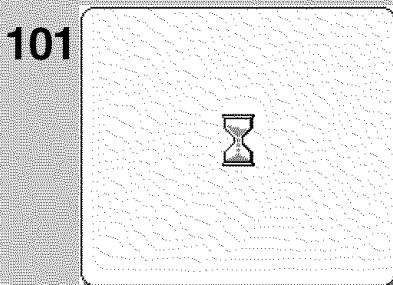


Version 0.000
Begin update process?



Start update process.

15. While in process

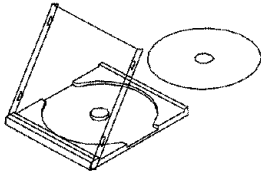


Now recalling.
Now processing.

Optional Accessories

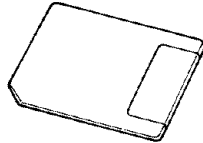
Separately available parts recommended to further enjoy your sewing

Professional Sew-Ware



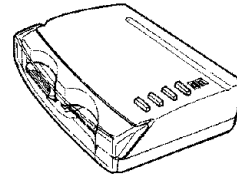
Optional Software for creating of Embroidery Patterns.

Embroidery card



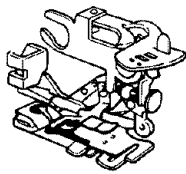
Embroidery Cards are available to widen applicability of embroidery.

Card Converter



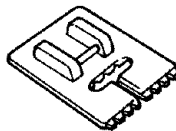
Use to convert XL-100, XL-150, XL-1000, XL-5000 Optional Embroidery Cards.

Ruffler Presser Foot



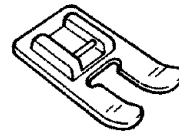
Ruffler quickly & easily produces professional looking ruffles on garments and home decorating.

Pintuck Foot



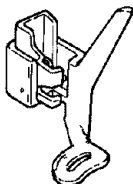
Use to sew evenly spaced plain or corded twin needle pintucks.

Open Toe Embroidery Foot



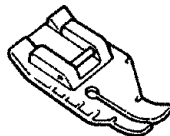
Use for satin stitching, applique, embroidery sewing.

Darning/Embroidery Foot



Use for free motion embroidery, darning & monogramming.

1/4 inch Quilter's Foot

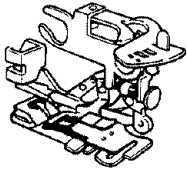


Use to sew perfect 1/4" seams for piecing quilt blocks.

Optional Accessories

* Always use Singer genuine accessory feet. Off brand or generic accessories may cause poor performance, damage to sewing machine or injury.

Ruffler presser foot (Part No.388087)



Ruffler quickly & easily produces professional looking ruffles on garments and home decorating.

* Be sure to turn power of before removing/attaching ruffler presser foot.

Attaching ruffler.

[1] Remove presser foot.
 [2] Raise needle bar to highest position.
 [3] Fit ruffler fork onto needle clamp screw and attach to presser bar.
 [4] Tighten presser foot screw with exclusive screwdriver.

Ruffling.

**NOTE: Sew test swatch before sewing on project.

(1) Determine number of ruffles.

Ruffles every stitch.
 Ruffles every six stitches.
 Ruffles every 12 stitches.
 Straight stitch

(2) Adjust overlapping width of ruffles.

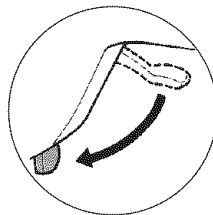
Ruffle overlap width increases.
 Ruffle overlap width decreases.

(3) Place fabric under ruffler foot.

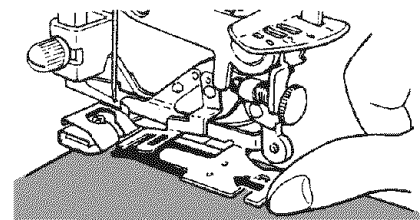
[1] Put in guide plate.

Fabric edge 6mm

(4) Lower ruffler presser foot.



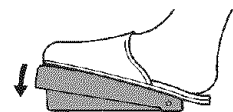
(5) Lightly push cloth feed plate towards back of machine.



[2] Through 25mm

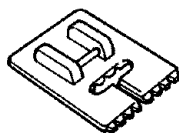
(6) Turn handwheel counter clockwise to lower needle into fabric until fabric begins to fold.

(7) Start sewing.



Optional Accessories

Pintuck foot (Part No.386022)



Uses:

- * Sews evenly spaced plain twin needle pintucks.
- * Sews evenly spaced corded twin needle pintucks.

Procedures:

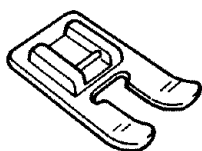
Plain pintucks

- 1) Insert twin needle and thread machine with two spools of thread.
- 2) Select center needle position straight stitch.
- 3) Mark straight line for first pintuck.
- 4) Stitch along marked line. Increase tension as desired, to make pintucks stand up.
- 5) Place first tuck into desired groove on bottom of pintuck foot. Stitch, allowing groove to guide fabric for evenly spaced tucks.

Corded pintucks:

Follow procedure above, but place cording under fabric. Lower twin needle by hand to ensure cording is centered in between stitch, being sure to catch cording between needles.

Open toe embroidery foot (Part No.386023)



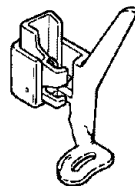
Uses:

- * For satin stitching.
- * For applique.
- * For machine embroidery, cutwork and fagoting.

Procedures:

- * This foot allows a clear view for sewing above techniques.
- * Follow instructions found in Singer Sewing Reference Library Series.

Darning/embroidery foot (Part No.386017)



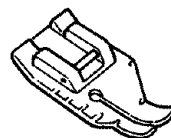
Uses:

- * For free-motion embroidery, darning & monogramming.

Procedures:

- 1) Drop feed dog.
 - 2) Place fabric into embroidery hoop (optional).
 - 3) Attach foot and tighten presser foot screw with exclusive screwdriver. Begin stitching, moving hoop as you stitch. If not using hoop, grasp fabric firmly with two hands and hold taut.
- Sew at slow to medium even sewing speed.

1/4 inch Quilter's foot (Part No. 386005)



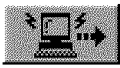
Uses:

- * To sew perfect 1/4" seams for piecing quilt blocks.
- * To sew narrow seams, such as those in doll clothes.

Procedures:

- * Use in place of A foot.
- * Select straight stitch pattern full left (automatic) position.

Optional Accessories



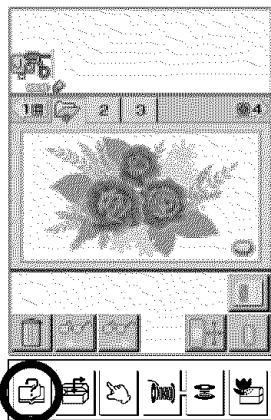
About PC connection pictogram

This pictogram is pressed when connecting between PC and sewing machine and transferring embroidery data that was created by PSW (Optional Professional Sew-Ware Ver. 2.00) directly to sewing machine.


Download

Transfer regular pattern data.

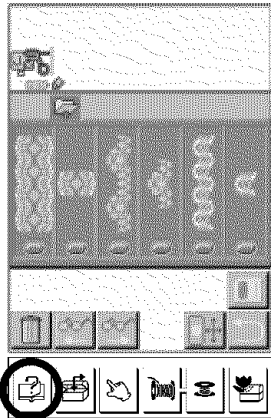
(1) Pattern selector screen.



Transfer continuous embroidery data.

From above screen (1)  indicate continuous EMB screen.

(2) Continuous EMB screen.



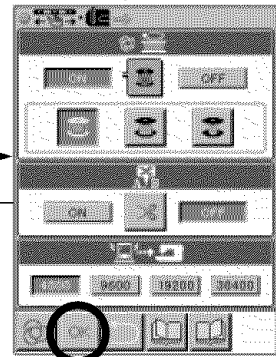
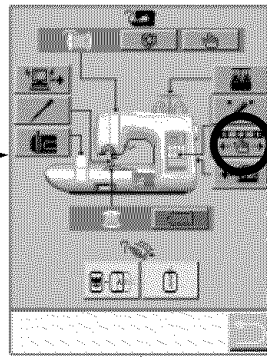
At the time transferred data is selected it will return to the screen (1) or (2).

With this icon  on pattern selector screen it will go to EDIT step.

Set BPM (transfer speed)

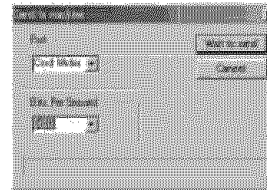
* One save the setting it is not necessary to make re-setting.

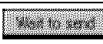

Press GUIDE key of switch sheet

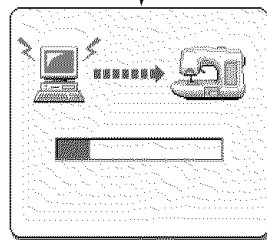


On PSW side, Click on File Send to machine

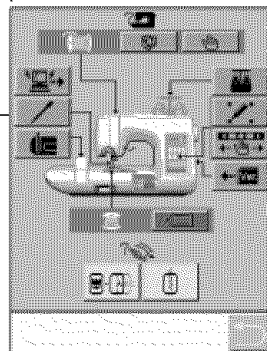
* Adjust the machine side BPM (transfer speed)
XXXX Bits Per Second



1. On PSW side, Click on 
2. On machine side, Press 



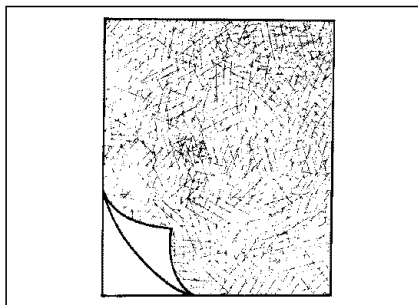
As soon after completion of transfer procedure it will return to GUIDE screen.



How To Sew Applique

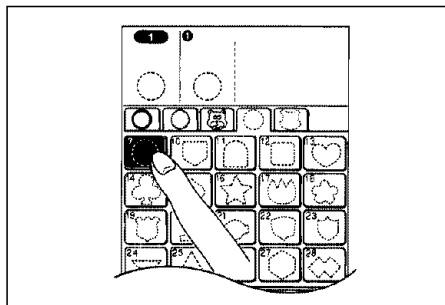
Prepare Applique Piece

1





Affix fusible interfacing to wrong side of applique fabric (for gluing technique).
or
Affix iron-on adhesive to wrong side of applique fabric (for iron-on technique).

2

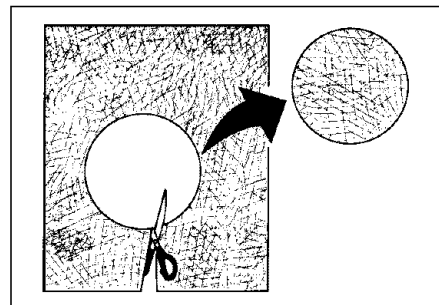


Install applique fabric into embroidery frame and attach to machine.

Press  or  then select applique pattern for your design.

Note: Check figure 1 of these instructions for correct number(s) of applique pattern.

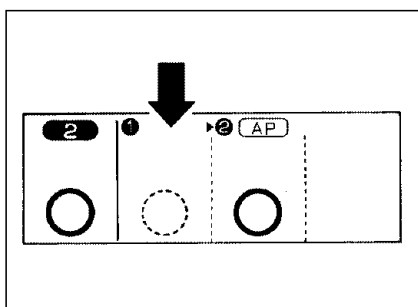
3



Sew applique pattern, remove applique fabric and cutout applique shape along outline stitch.

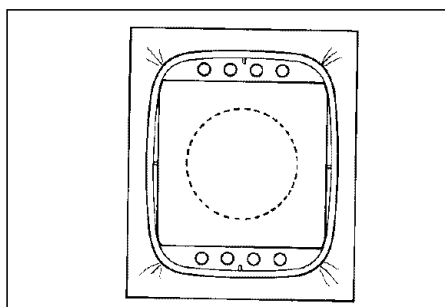
Prepare Base Fabric

1



Affix fusible interfacing to wrong side of fabric. Install base fabric into embroidery frame and attach to machine.

2



Sew steps until outline of applique pattern is sewn.

3

Remove embroidery frame from machine keeping base fabric installed in frame.

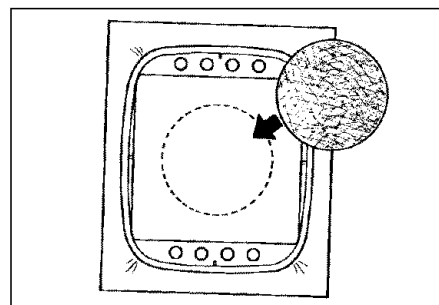
Affix Applique Piece To Base Fabric

Gluing Technique:

Apply small drops of fabric glue to back of applique piece taking care to not get glue close to edge. Glue applique piece in place on base fabric aligning applique with outline stitching on base fabric.

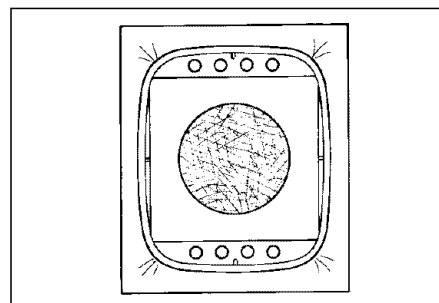
Iron-on Technique:

Peel paper backing off back of applique piece. Place applique piece on base fabric aligning piece on outline stitching of applique. Using (an iron small enough to fit inside embroidery frame) secure applique piece in place by ironing for 3 to 5 seconds.

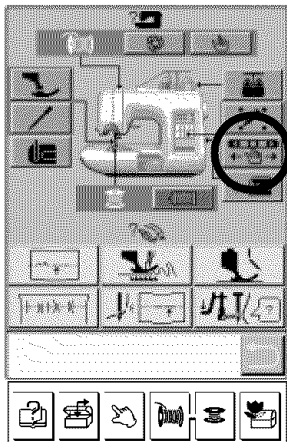
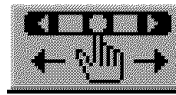


Sew Applique Piece To Base Fabric

Attach embroidery frame to machine, install proper thread color, and continue sewing until applique motif is completed.



How to use Optional Settings



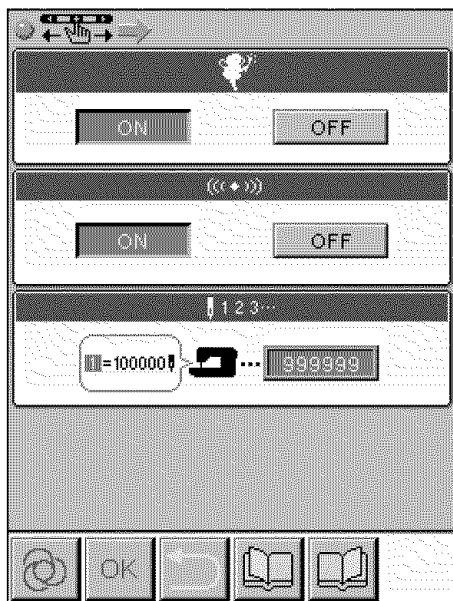
Activate options screen using  of [Guide].

Settings of error message displaying time, automatic back taking and thread trimming can be changed.

Change the setting of target item, then press .

To retrieve the previous setting, press  pictogram.

To retrieve the standard setting, press  pictogram.



1. (Common settings)

■ Welcome screen display:

The utility screen or embroidery screen can be directly activated by omitting welcome screen that appears on LCD screen immediately after turning on power switch.

■ Switch acceptance sound:

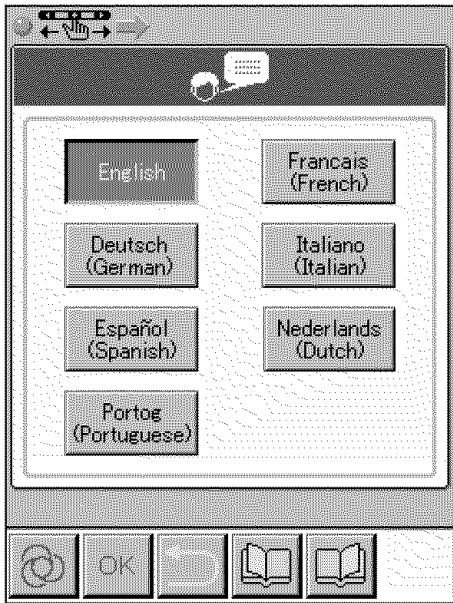
It is possible to select [Sound] or [No sound] of acceptance beep produced when you press a operating key or a pictogram on screen or perform an operation. Buzzer that warns occurrence of an error will sound regardless of above setting.

■ Stitch Count Odometer:

Your sewing machine has an Odometer that keeps track of how many stitches you have sewn in both Standard Mode and Embroidery Mode. A count of 1 is equal to 100,000 stitches. It is a good idea to change needles every 200,000 stitches. Clean your machine every 500,000 stitches. And have your sewing machine and embroidery unit professionally cleaned and serviced every 3,000,000 stitches

Press  pictogram to proceed to "2" on next page.



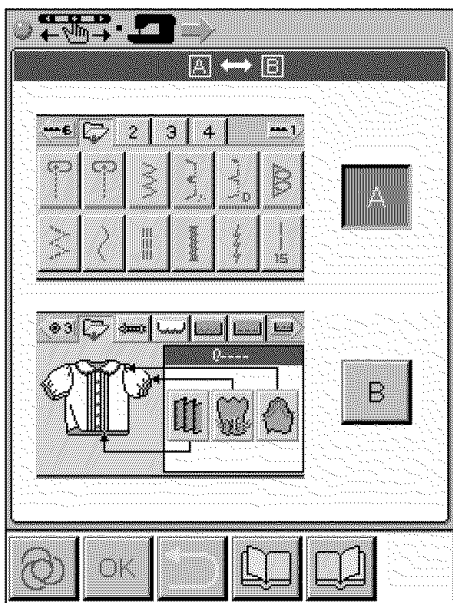


2. (Common settings)

■ Setting of message screen language:

Initial setting of message screens (such as error message) language can be specified.

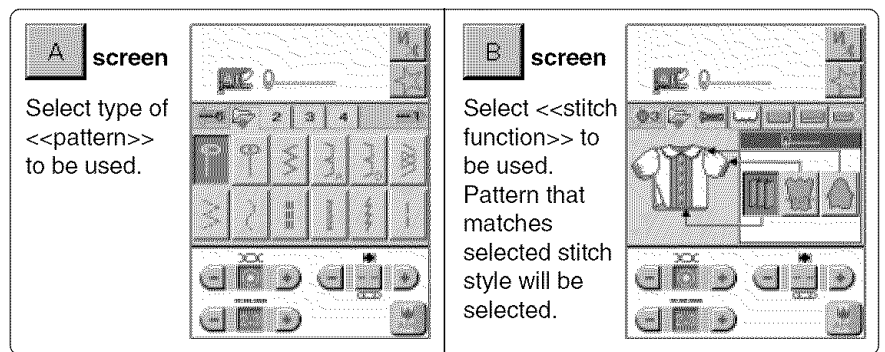
Press  pictogram, and following screen will appear.



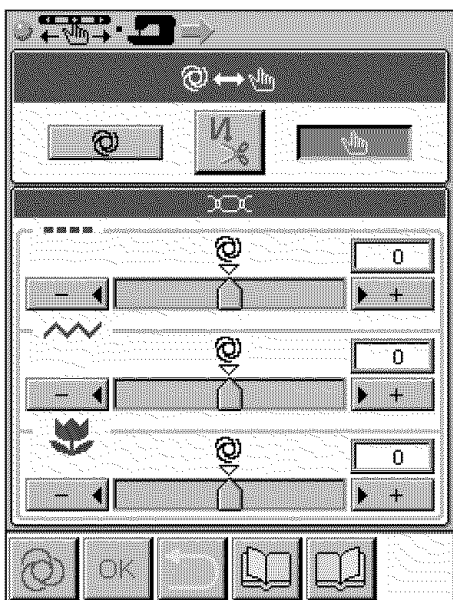
3. (Setting for main unit of sewing machine)

■ Changing over screen to utility pattern selection screen:

It is possible to specify screen on which utility pattern selection is made, either **A** screen or **B** screen.



Press  pictogram, and following screen will appear.



4. (Setting for main unit of sewing machine)

■ Automatic back tacking: Initial setting of thread trimming:

It is possible to specify setting method of back tacking and thread trimming according to pattern selected, either automatic setting or manual setting.

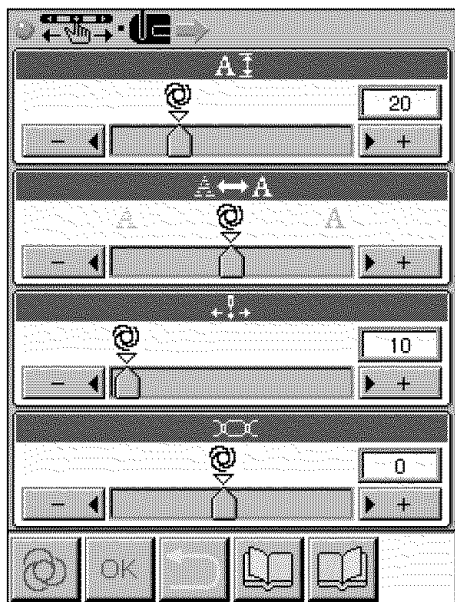
■ Initial setting of thread tension:

Default initial setting of thread tension can be established separately for “straight stitch,” “zigzag stitch” and “Others.”

* Re-selecting a pattern after changing setting optionally will make changed setting effective.

Press  pictogram to proceed to “5” on next page.





5. (Setting for embroidery)

■ Changing letters size:

Standard size of letters and numbers stored in machine can be specified.

■ Letter density:

Embroidering density of letters stored in machine can be specified.

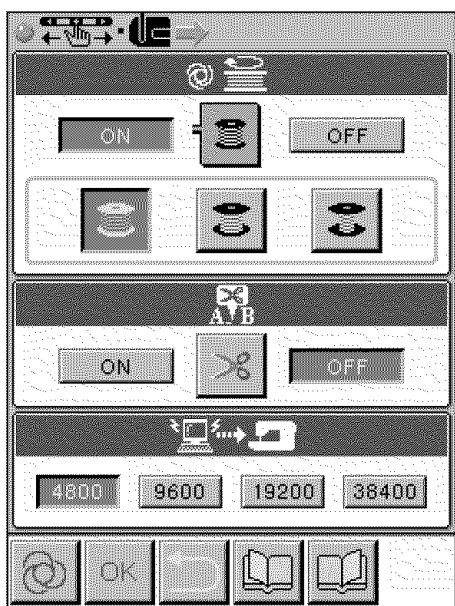
■ Setting of number of stitches needle moves back for correcting stitches :

The number of stitches needle moves back when faulty stitches need to be corrected can be specified.

■ Initial setting of thread tension:

Initial setting of thread tension for automatic mode can be specified.

Press  pictogram, and following screen will appear.



6. (Setting for embroidery)

■ Setting of automatic winding of exclusive bobbin thread:

It is possible to set whether or not machine automatically winds bobbin when bobbin thread has run out during embroidery.

Additionally, initial setting of bobbin thread winding amount can be specified.



*** To completely use bobbin thread remaining on bobbin, machine may automatically sew along edge of embroidery frame before winding bobbin.**

*** In the case where automatic bobbin winding is set to "off" machine will stop embroidery when bobbin thread has run out. In this case, machine will wind bobbin when bobbin winding key is pressed.**

■ Setting of thread trimming:

It is possible to set whether or not machine automatically trimming transition thread between patterns.




■ Setting of Data Transfer Speed from Computer to Sewing Machine.

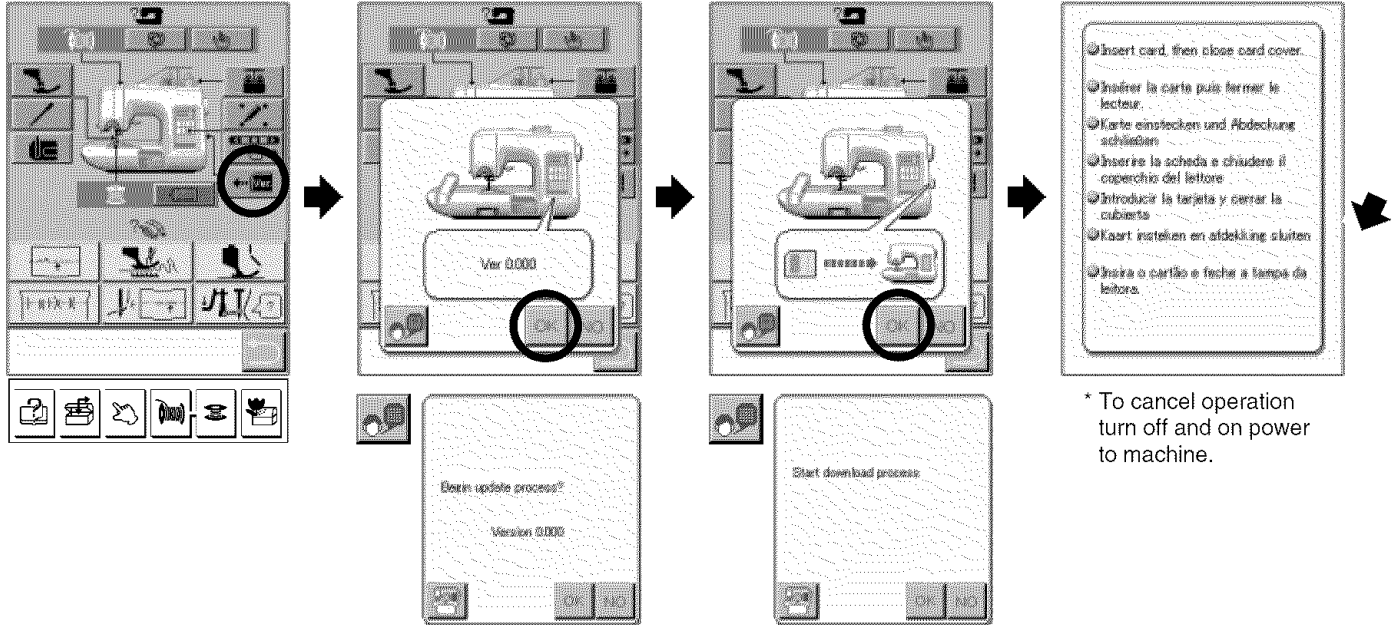
Press  pictogram to proceed to "1" on next page. 

Updating machine

Machine can be updated with downloaded data from PC via smart media card.

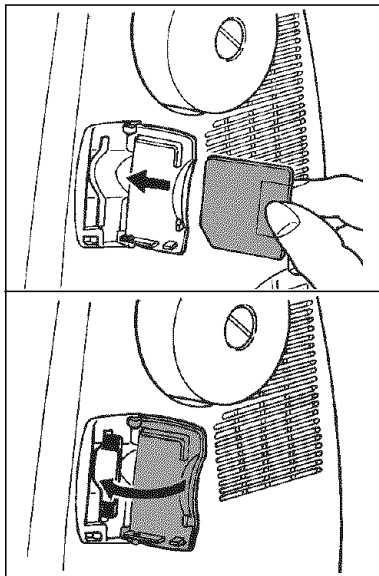
Activate update screen using  of [Guide].

1 Press  pictogram. **2** Press  pictogram. **3** Press  pictogram. **4**

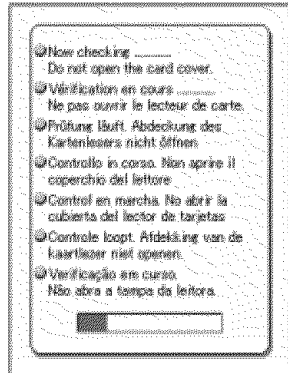


* To cancel operation turn off and on power to machine.

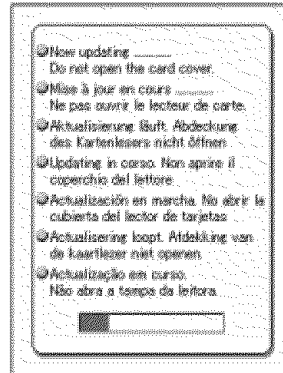
5 Insert card, then close card cover.



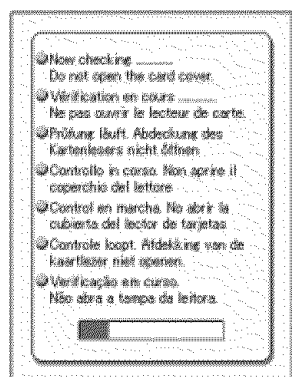
6



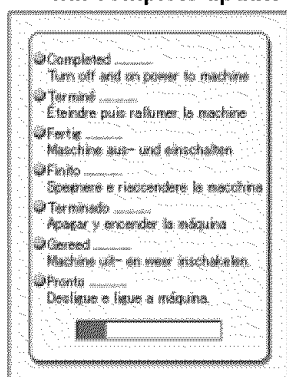
7



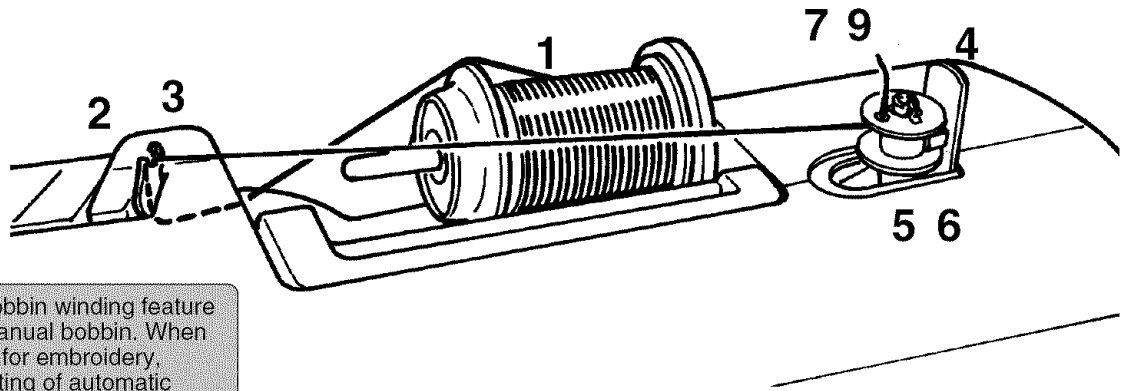
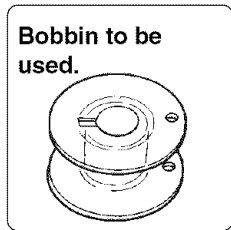
8



9 Turn off and on power to machine will complete update procedure.

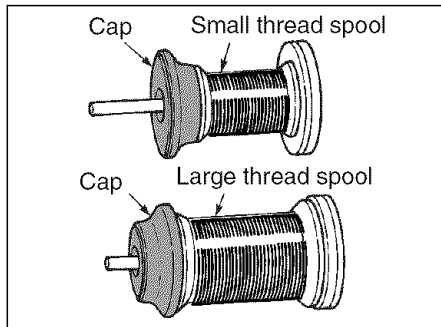


Bobbin winding/placing a bobbin

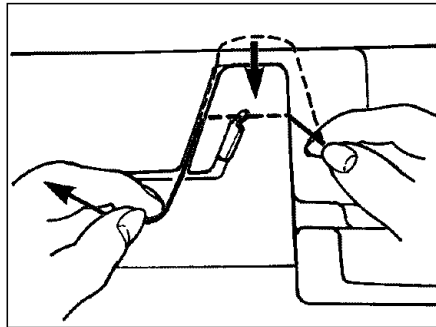


Endless automatic bobbin winding feature is not designed for manual bobbin. When using manual bobbin for embroidery, please turn OFF "Setting of automatic winding of exclusive bobbin thread" Edescribed on item 5 (Setting for embroidery) of page 117.

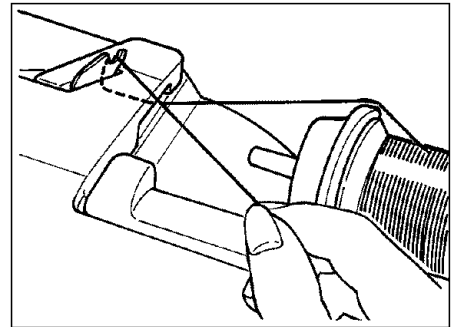
1 Put a spool of thread and spool cap onto spool pin.



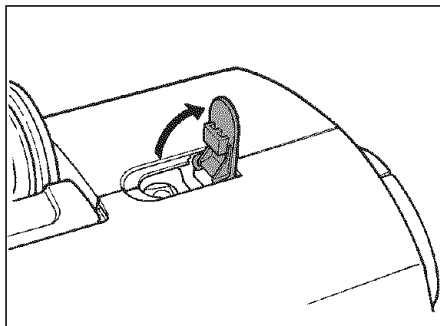
2 Draw the thread toward you with both hands.



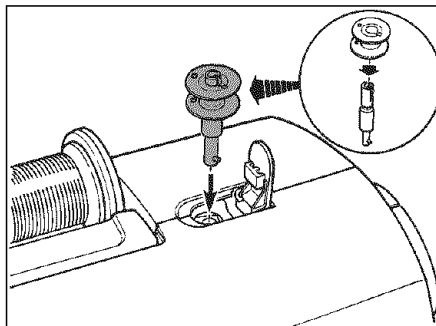
3 Thread the thread guide.



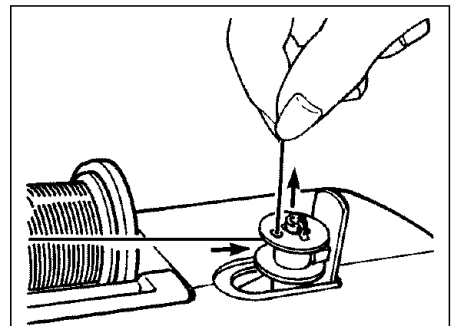
4 Open cover of bobbin winding shaft hole.



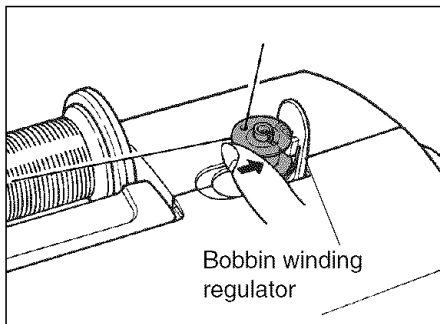
5 Place a bobbin on bobbin winding shaft, then fit in hole.



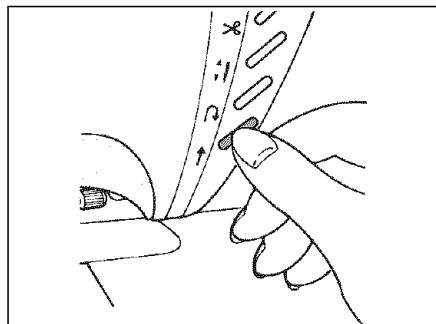
6 Pass thread through hole in bobbin.



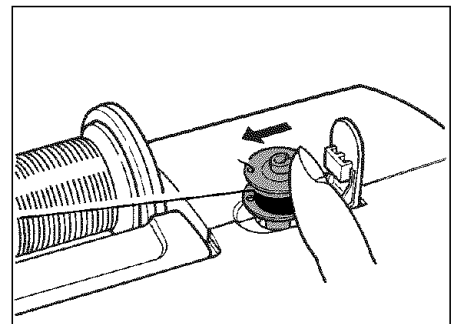
7 Push bobbin against bobbin winding regulator.



8 Start machine.



9 Push bobbin back to left.



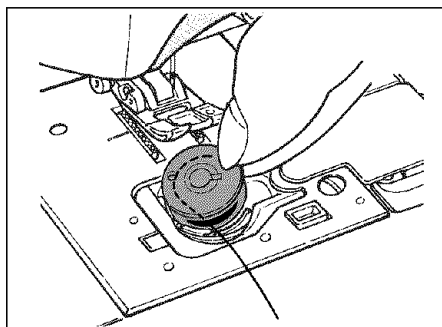
Cut away excess of thread and take out bobbin.

Loading bobbin (bobbin thread) in machine

Caution

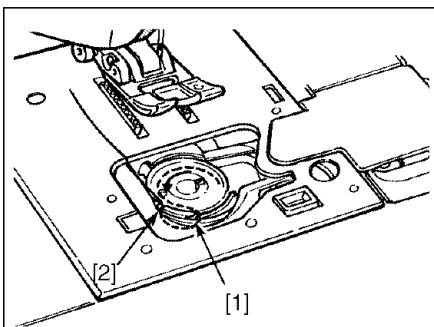
Be sure to turn off power switch before loading bobbin in machine.

1 Place bobbin in rotating hook bobbin case holder.



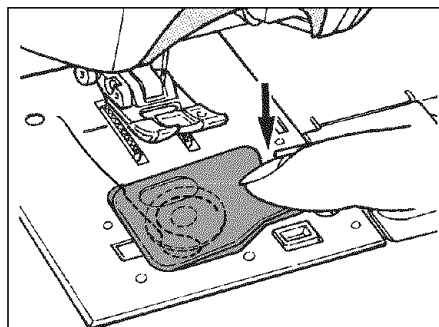
Thread should pull off the bobbin in a counterclockwise direction.

2 Thread rotating hook bobbin case holder.



Put thread into groove [1] and out through groove [2]. Pull thread toward the back of the machine.

3 Close bobbin case cover.

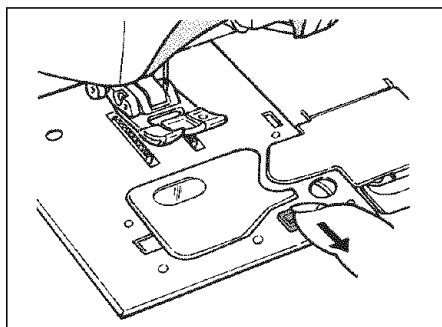


Caution

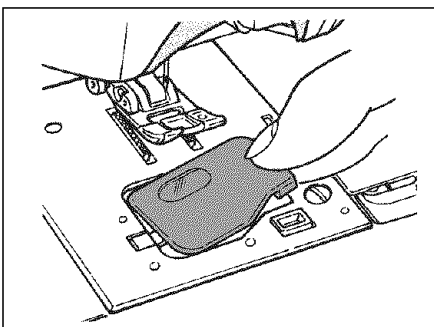
Be sure to turn off power switch before loading/removing bobbin.

Taking out the bobbin

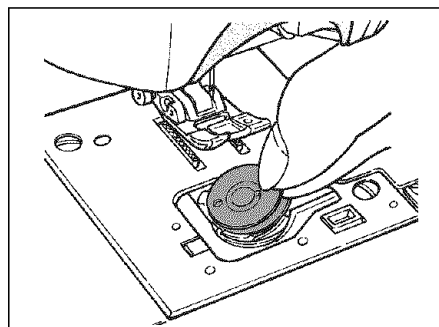
1 Pull button toward you.



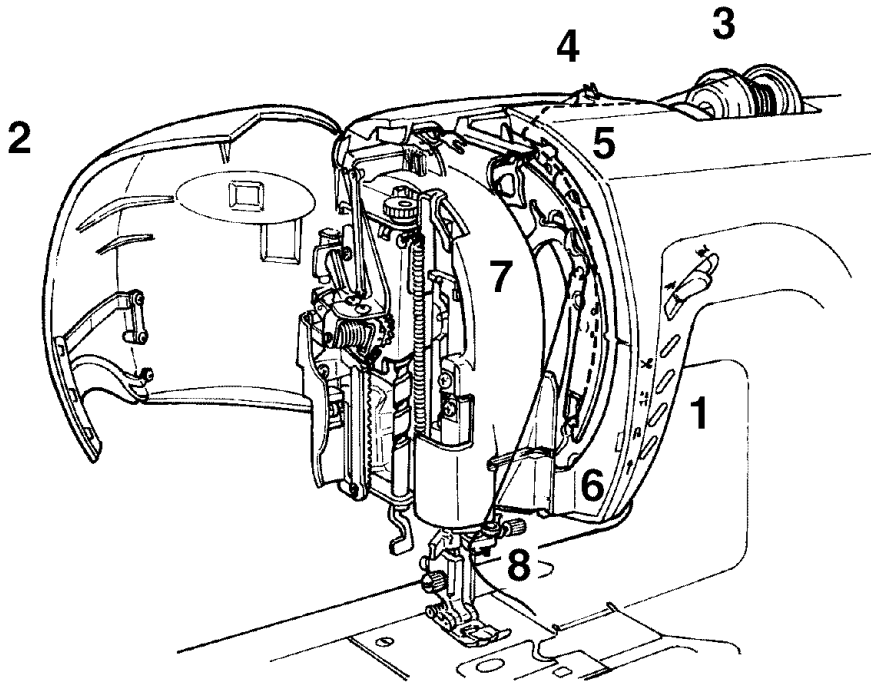
2 Remove cover.



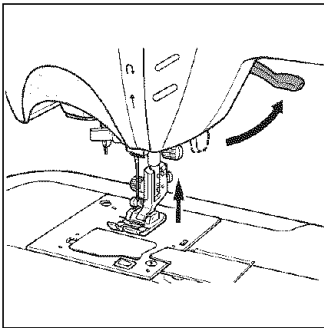
3 Take out bobbin.



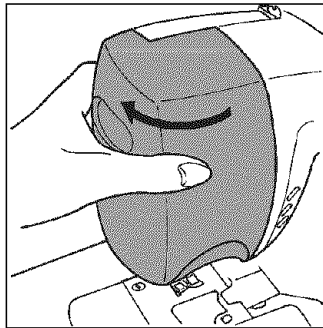
Manual threading of machine head



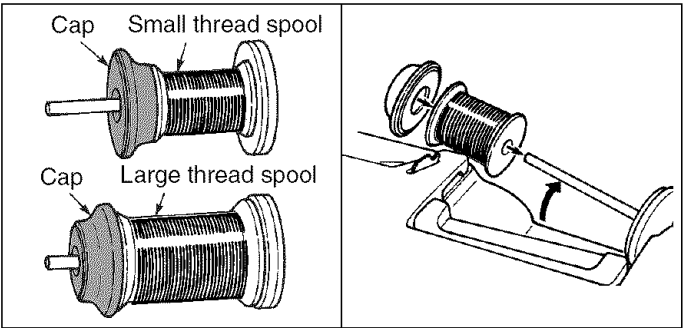
1 Raise presser foot lifter.



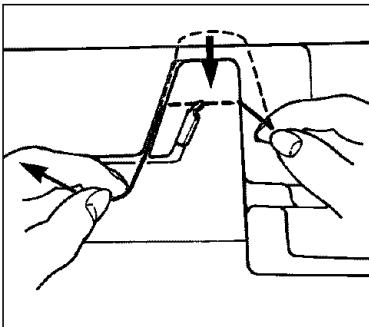
2 Open face plate cover.



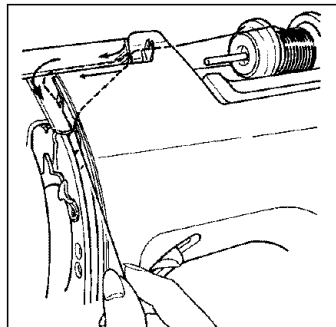
3 Place a thread spool and spool cap onto spool pin.



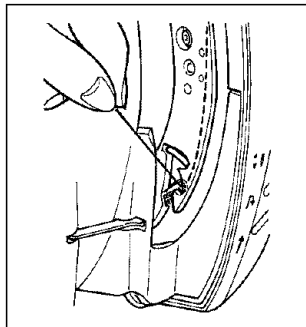
4 Draw thread toward you with both hands.



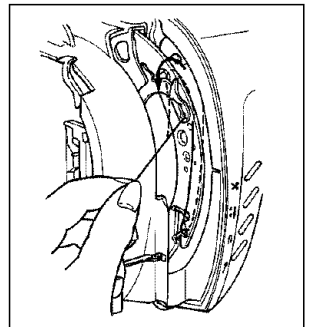
5 Holding end of thread and route it as indicated with arrows.



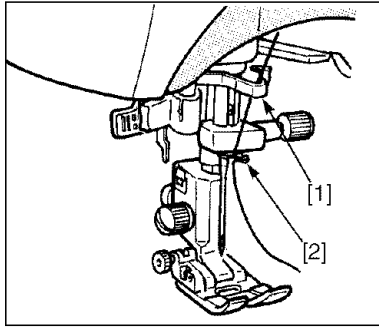
6



7

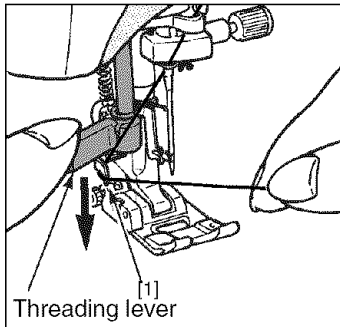


8 Thread [1] and [2] from right side.



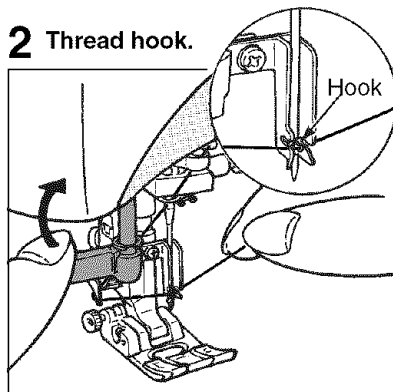
Automatic needle threading

1 Lower presser foot. Lower threading lever.



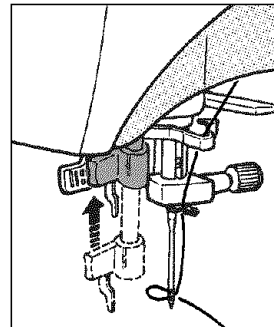
Raise needle. Then, lower threading lever and thread [1].

2 Thread hook.

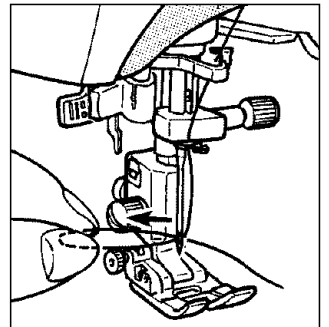


Turn thread lever to allow hook to be threaded.

3 Raise threading lever. 4 Draw out thread.



When you release hook, hook will catch needle to thread needle eyelet.



Draw out thread through needle eyelet by approximately 10 cm.

Caution

1. Do not lower threading lever while sewing machine is in operation.
2. Automatic needle threading capability is applicable to needles of #11, #14 and #16.

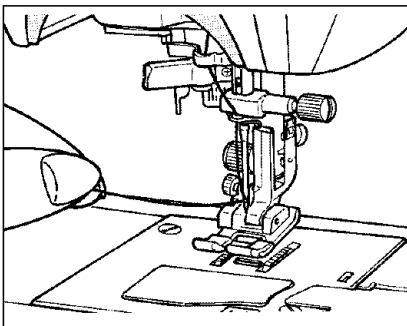
After automatic thread trimming, machine is able to perform sewing even if no bobbin thread appears on throat plate.

This function minimizes thread waste.

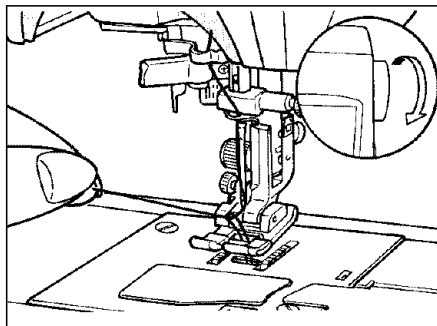


Pulling up bobbin thread

1 Raise presser foot. Lightly hold needle thread with fingers.

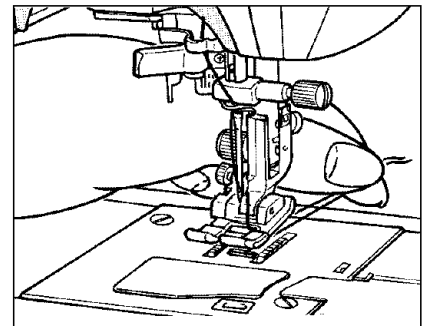


2 Turn handwheel toward you.



The needle moves up and down to draw up bobbin thread from bobbin.

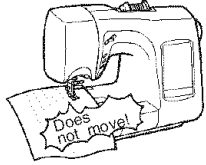
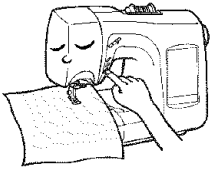
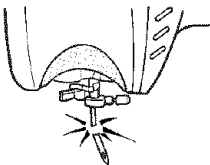
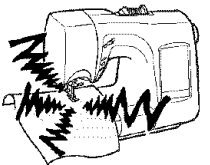
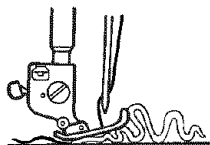
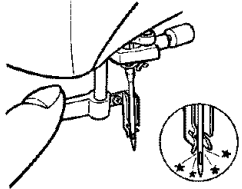
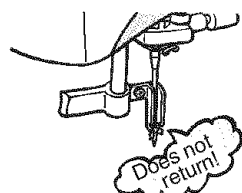
3 Pull out both needle and bobbin threads by approximately 10 cm and route them under presser foot away from you.

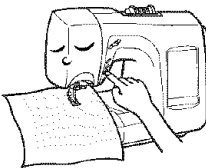
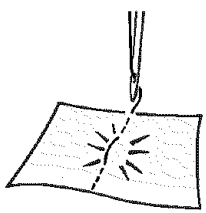
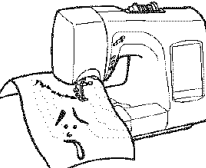
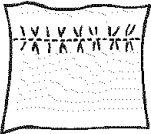
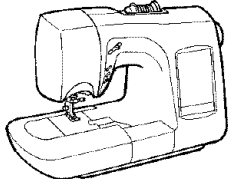


Troubleshooting

If sewing difficulties occur, make sure instructions are correctly followed.

If a problem still exists, reminders below may help.

| Problem | Cause (Reason) | Action to be taken | Page |
|---|--|--|--|
|  <ul style="list-style-type: none"> • Sewing machine stops rotating during sewing. * When handwheel can be normally turned by hand. | <ul style="list-style-type: none"> • Low-speed sewing is performed for an extended period of time. * Motor power is automatically turned off so as to prevent motor from overheating. | <ul style="list-style-type: none"> • Turn off power switch. Wait for a while (approximately 20 minutes). Then, safety device will be reset to enable normal operation. | — |
|  <ul style="list-style-type: none"> • Sewing machine will not run even when it has started. | <ul style="list-style-type: none"> • Needle thread has run out. • Bobbin winder shaft shifts to left. • Lever is not lowered at time of buttonholing. • Thread retaining plate cover is opened. | <ul style="list-style-type: none"> • Properly thread machine head and press start button. • Move bobbin winder shaft fully to left until it will go no further. • Lower buttonhole lever. • Close thread retaining cover. | 11,12 119 35 66 |
| | <ul style="list-style-type: none"> • Sewing machine will not start even when start/stop button is pressed. (Lamp lights up.) | <ul style="list-style-type: none"> • Presser foot is improperly installed. As a result, needle comes in contact with presser foot. • Sewing machine is started though needle has come off and dropped in hook. | <ul style="list-style-type: none"> • Replace presser foot that matches stitch pattern selected. • Remove needle from hook. |
|  <ul style="list-style-type: none"> • Needle breaks. | <ul style="list-style-type: none"> • Thin needle is used to sew heavy-weight fabric. • Needle is not fully inserted in needle clamp. • Needle clamp screw is not securely tightened. • Presser foot used does not match patterns selected. | <ul style="list-style-type: none"> • Check relation among fabric, sewing thread and sewing needle. • Check how needle is attached. • Securely tighten needle clamp screw. • Check relation between pattern selected and presser foot used. | 27 27 27 19 |
|  <ul style="list-style-type: none"> • Sewing machine produces too low/high operating noise. | <ul style="list-style-type: none"> • Dust has accumulated in feed dog. • Thread waste has accumulated in hook. | <ul style="list-style-type: none"> • Perform maintenance of machine. • Clean up sewing machine. | 125 125 |
|  <ul style="list-style-type: none"> • Fabric is not fed. | <ul style="list-style-type: none"> • Stitch length is set to 0 (zero). • Soft fabric such as towel is used. • Drop-feed knob is set to right position. | <ul style="list-style-type: none"> • Re-select pattern, and stitch length that matches pattern will be specified. • Set stitch length to 3 to 4. • Set knob to left position. | 20 — 13,14 |
|  <ul style="list-style-type: none"> • Needle cannot be threaded. * Needle threading hook does not rotate. | <ul style="list-style-type: none"> • Needle is not raised. * When needle is not in its upper position, hook does not rotate to ensure safety. | <ul style="list-style-type: none"> • Turn handwheel to raise needle. | 11,12, 121 |
| | <ul style="list-style-type: none"> • Needle threading hook does not enter needle eyelet. | <ul style="list-style-type: none"> • Needle is not fully inserted in needle clamp. | <ul style="list-style-type: none"> • Check how needle is installed. |
|  <ul style="list-style-type: none"> • Threading lever does not return to home position and machine fails to rotate. * Threading hook remains in needle eyelet and fails to return to home position. | <ul style="list-style-type: none"> • Sewing machine is rotated by mistake with threading lever is in lower position (during threading). | <ul style="list-style-type: none"> • Rotate handwheel slightly counterclockwise (direction opposite to that of normal sewing). | — |

| Problem | Cause (Reason) | Action to be taken | Page |
|--|--|---|--|
|  <ul style="list-style-type: none"> • Sewing machine will not sew when start/stop button is pressed. | <ul style="list-style-type: none"> • Speed controller has been plugged in. | <ul style="list-style-type: none"> • Unplug speed controller. | 9 |
|  <ul style="list-style-type: none"> • Thread breaks. • Stitch skips. | <ul style="list-style-type: none"> • Sewing machine is incorrectly threaded. • Thread used has kinks or knots. • Thread tension is not properly adjusted. • Needle is bent or has blunt tip. • Needle is incorrectly attached. • Rotating hook bobbin case holder is incorrectly threaded. • Bobbin fails to smoothly rotate in rotating hook bobbin case holder. • Needle does not match thickness of thread used. • Thread take-up lever is not threaded. | <ul style="list-style-type: none"> • Check threading sequence and re-thread machine head correctly. • Remove kinks or knots from thread. • Check relation between stitch pattern selected and sewing thread used. Then, properly adjust thread tension. • Replace needle with a normal one. • Correctly attach needle. • Check threading route of bobbin thread. • Check how bobbin thread is wound round bobbin. • Check relation between sewing thread and needle. • Check threading route of needle thread. | 11,12 — 22 27 27 120 — 27 11,12, 121 |
|  <ul style="list-style-type: none"> • Thread tension cannot be properly regulated. | <ul style="list-style-type: none"> • Thread detecting thread guide is not threaded. • Sewing machine head is not properly threaded. • Bobbin thread is not properly routed. • Orientation of thread spool cap does not match that of thread spool. | <ul style="list-style-type: none"> • Securely thread thread detecting thread guide so that thread passes deepest part of guide. • Check how machine head is threaded. • Check threading route of bobbin thread. • Attach thread spool cap in correct orientation with respect to thread spool. | 11,12, 121 11,12, 121 120 11,12 |
|  <ul style="list-style-type: none"> • Seam puckering occurs. | <ul style="list-style-type: none"> • Stitch length is too large to sew light-weight fabric. • Needle has blunt tip. | <ul style="list-style-type: none"> • Decrease (shorten) stitch length. • Replace needle with a normal one. | 20 27 |
|  <ul style="list-style-type: none"> • Sewing machine fails to automatically wind a bobbin. | <ul style="list-style-type: none"> • Main body of sewing machine is not properly threaded. • Retaining plate is not properly thread with (embroidery) thread • Parts related to bobbin winding is tangled with thread waste or thread. | <ul style="list-style-type: none"> • Check threading sequence of machine head and re-thread it properly. • Open thread retaining cover to check that retaining plate is properly threaded. Re-thread retaining plate using bobbin winder guide. • Remove thread waste or thread using a pair of tweezers. | 13,14 66 — |

Specification table

Standard sewing machine

| Item | Specification |
|------------------------------------|--|
| Dimensions | 479 (W) x 324 (H) x 215 (D) mm |
| Dimensions when attached with case | 495 (W) x 330 (H) x 235 (D) mm |
| Weight | 12.4 kg (when attached with case: 13.7 kg) |
| Rated voltage/power consumption | 120/0.9A 60 Hz |
| Power consumption of lamp | 13.5V / 3W |

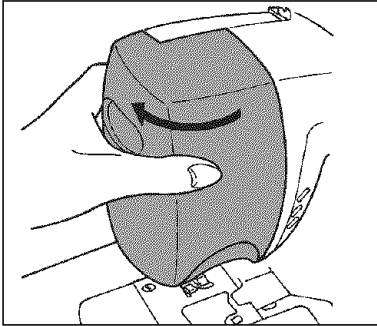
Embroidery Unit

| Item | Specification |
|---|--|
| Dimensions | 33.5 (W) x 13.0 (H) x 32.0 (D) cm |
| Dimensions when installed on sewing machine | 59.5 (W) x 32.4 (H) x 33.5 (D) cm |
| Weight | 2.3 kg (when installed on sewing machine: 13.0 kg) |

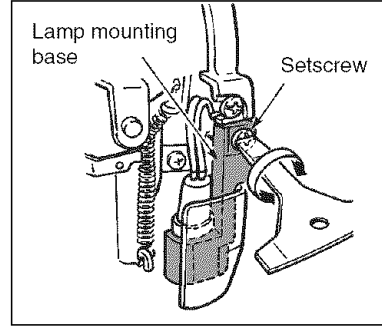
Replacing lamp

Caution *Be sure to turn off power switch and detach plug from wall outlet before replacing a lamp bulb.
*Be sure to replace lamp after it has cooled.

1 Open face plate cover.

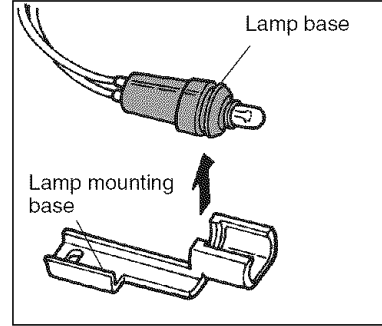


2 Remove lamp mounting base.



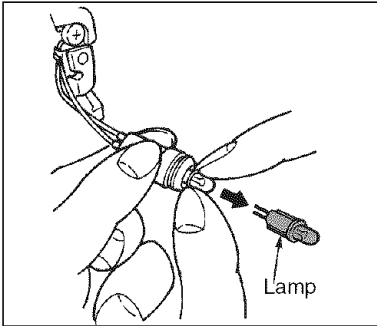
Loosen setscrew and remove lamp mounting base.

3 Remove lamp base from lamp mounting base.



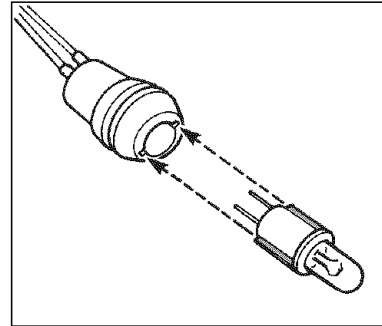
* When installing lamp base, align groove on lamp base with that on mounting base.

4 Draw out lamp until it comes off.



Draw lamp out without twisting it.

5 Fit a new lamp in place.



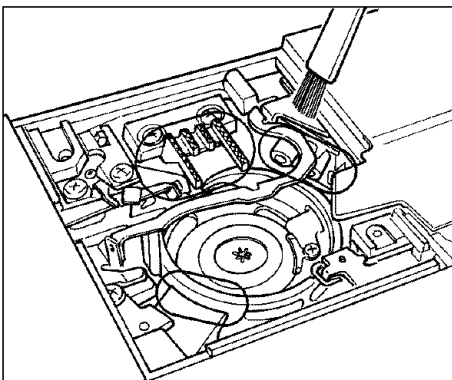
Slide lamp into place along narrow groove on lamp base.

* Power consumption of lamp: 3 W (13.5 V)
* Please purchase a new lamp from service center or from Singer Dealer where you purchased your machine.

Maintenance of sewing machine

Caution Be sure to turn off power switch and detach plug from wall outlet before performing maintenance of your machine.

Cleaning to remove lint and dust.

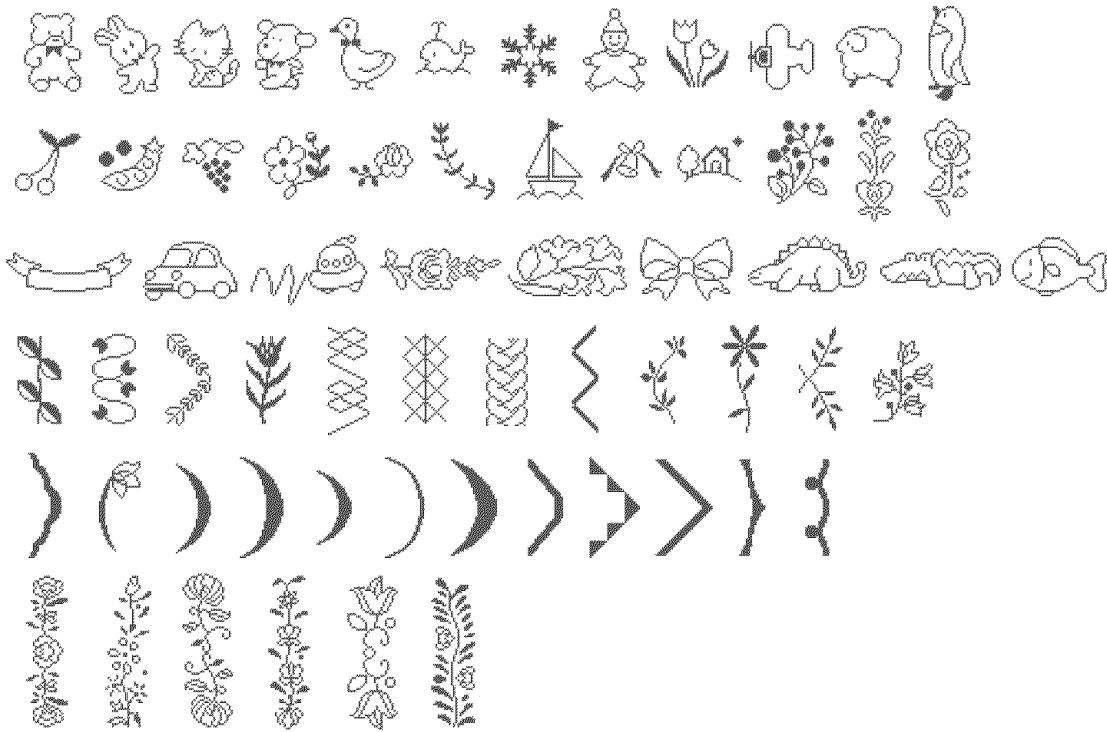


Accumulation of lint or dust may cause problems. Always keep your sewing machine clean.

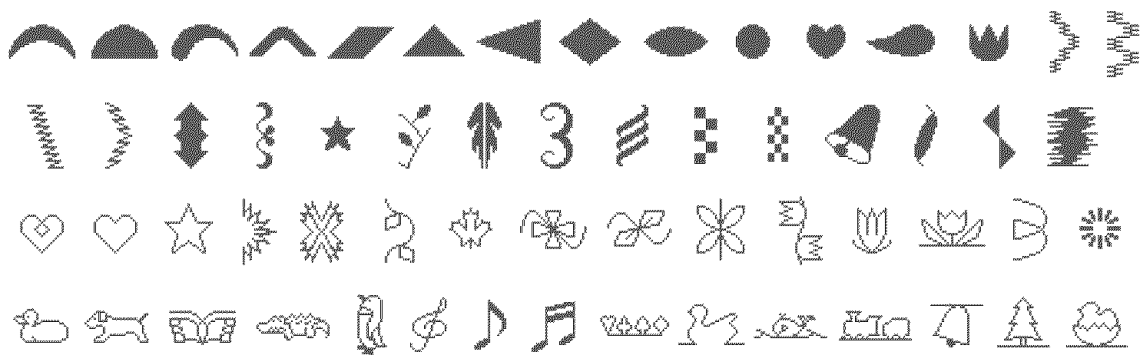
Remove needle and presser foot, and clean areas around feed dog, throat plate and rotating hook bobbin case holder using brush supplied with your machine as an accessory.

If lint or dust accumulated is too much to clear with brush, remove it with a vacuum cleaner.

Large size patterns



Single regular patterns



Alphabet patterns

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890 < > , . & ! ? ' ~ - . /
Ä Å Ö Ü Æ Æ Ñ Ø ß A F L P T V W Y
ä å ö ü æ œ ñ ø à á â ç è é ê ë ì í ò ó ô

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890 < > , . & ! ? ' ~ - . /
Ä Å Ö Ü Æ Æ Ñ Ø ß
ä å ö ü æ œ ñ ø à á â ç è é ê ë ì í ò ó ô

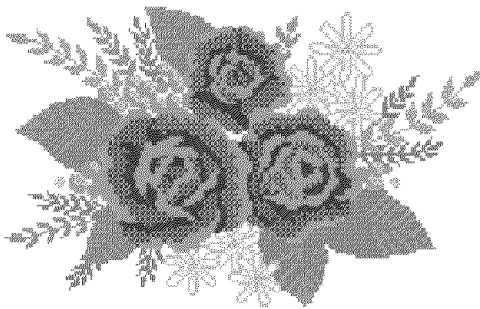
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abcdefghijklmnopqrstuvwxyz
1234567890 < > , . & ! ? ' ~ - . /
Ä Å Ö Ü Æ Æ Ñ Ø ß
ä å ö ü æ œ ñ ø à á â ç è é ê ë ì í ò ó ô

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890 < > , . & ! ? ' ~ - . /
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abcdefghijklmnopqrstuvwxyz
1234567890 < > , . & ! ? ' ~ - . /
Ä Å Ö Ü Æ Æ Ñ Ø ß A F L P T V W Y
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Embroidery pattern Stitch List

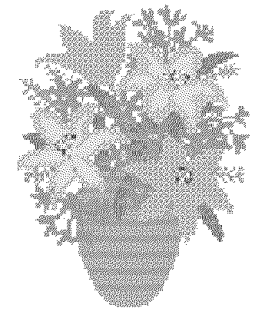
Floral patterns



1 2 3 4 5 6 7
8 9 10 11 12 13



1 2 3 4 5 6 7 8
9 10 11 12 13 14 15 16



1 2 3 4 5
6 7 8 9 10
11 12 13 14



1 2 3
4 5 6



1 2 3 4
5 6 7 8



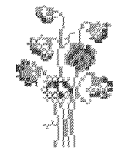
1 2 3 4
5 6 7 8



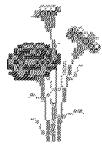
1 2 3 4
5 6 7 8
9 10 11



1 2 3 4
5 6 7 8



1 2 3 4
5 6 7



1 2 3 4
5 6 7 8
9



1 2 3
4 5 6



1 2 3
4 5 6



1 2 3 4
5 6 7



1 2 3 4
5 6 7 8
9 10



1 2 3 4
5 6 7 8
9



1 2 3 4
5 6 7



1 2 3 4
5 6 7 8



1 2 3 4
5 6 7 8
9



1 2 3
4 5 6



1 2 3 4
5 6 7 8
9 10



1 2 3 4
5 6 7 8



1 2 3 4
5 6 7 8



1 2 3 4
5 6 7



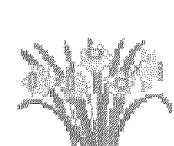
1 2 3
4



1 2 3 4
5 6 7 8
9



1 2 3
4 5 6



1 2 3 4
5 6 7



1 2 3 4
5 6 7 8 9



1 2 3 4
5 6 7 8 9



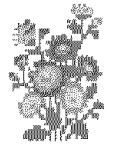
1 2 3 4
5 6 7 8 9



1 2 3 4
5 6 7 8



1 2 3 4
5 6 7 8 9



1 2 3 4
5 6 7 8 9



1 2 3 4
5 6 7 8



1 2 3
4 5



1 2 3
4 5 6



1 2 3 4
5 6 7 8



1 2 3 4
5 6 7



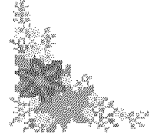
1 2 3 4 5
6 7 8 9 10
11 12



1 2 3 4 5
6 7 8 9



1 2 3 4 5
6 7 8 9 10
11 12



1 2 3 4 5
6 7 8 9



1 2 3
4



1 2 3
4 5



1 2 3
4 5



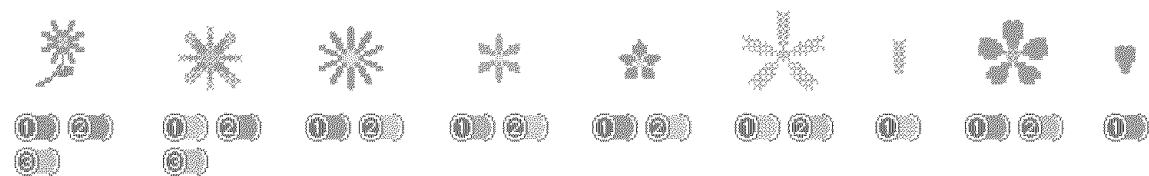
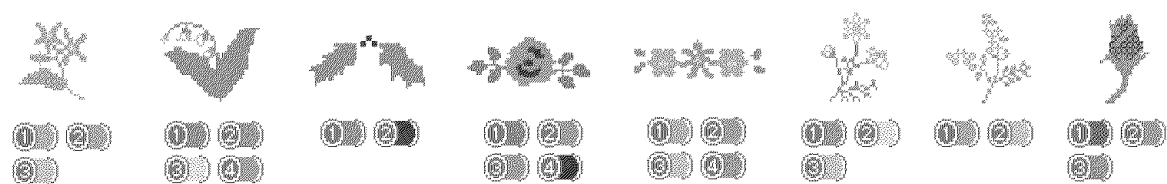
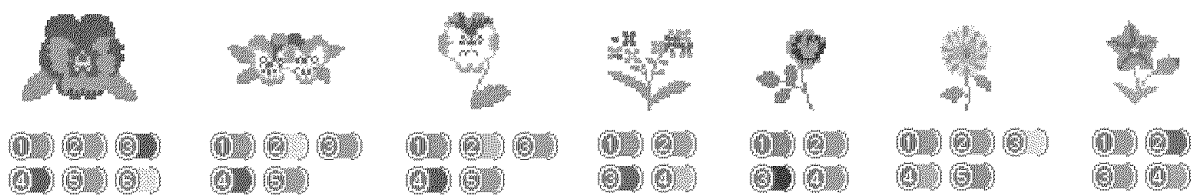
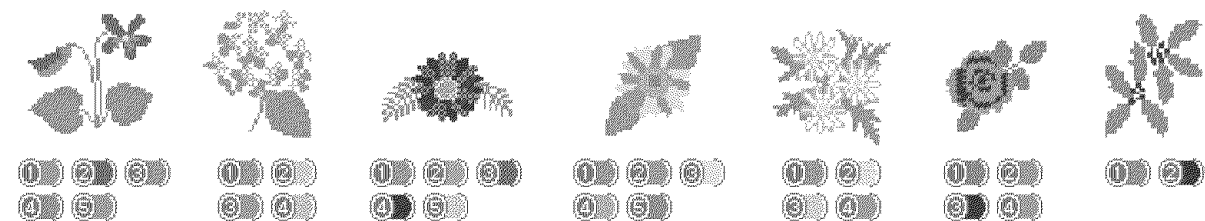
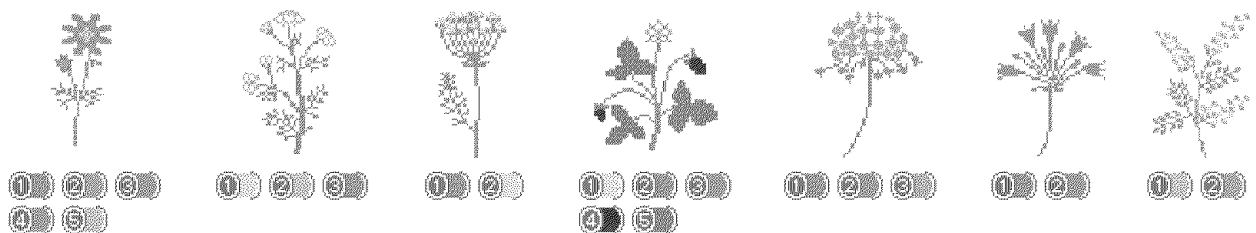
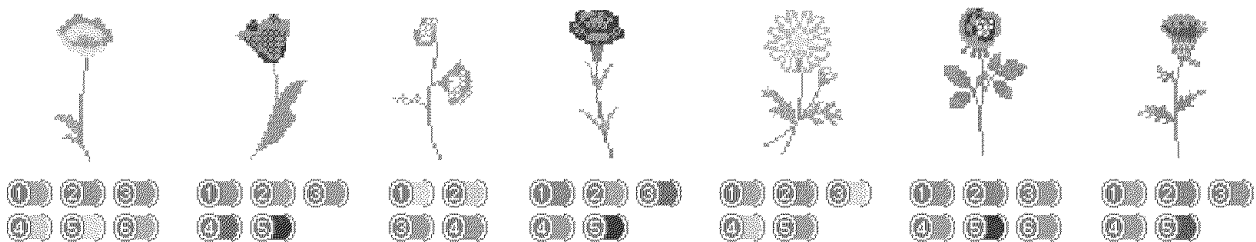
1 2 3
4



1 2 3
4 5 6



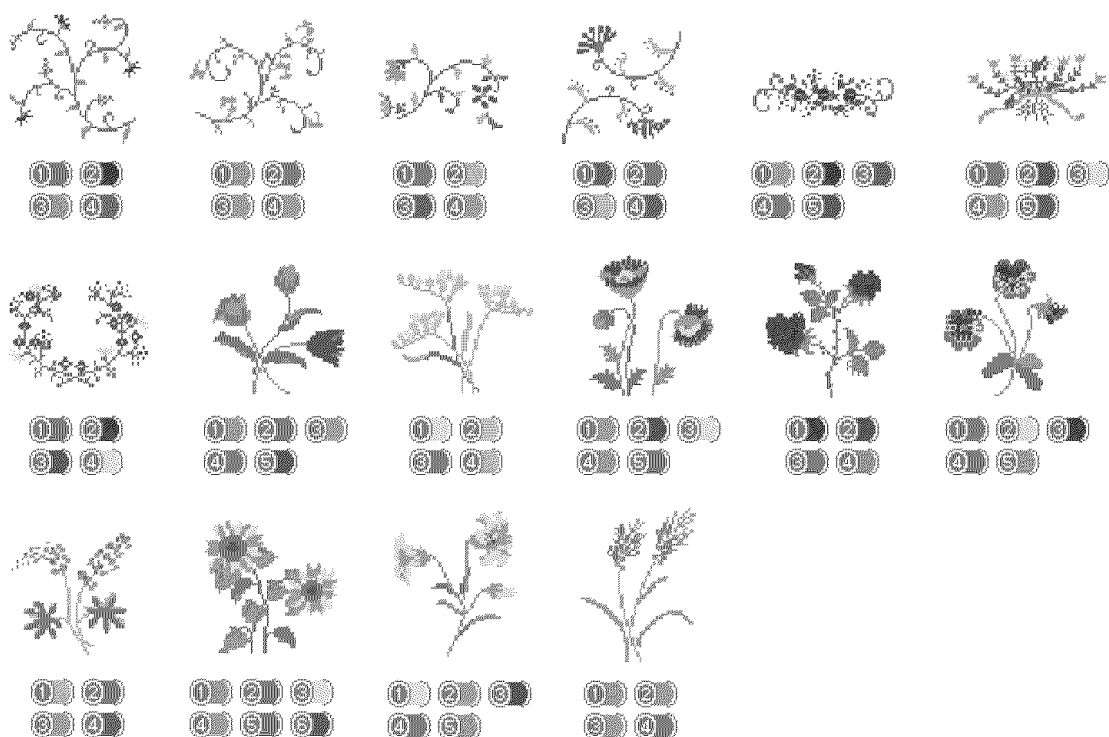
1 2 3
4 5

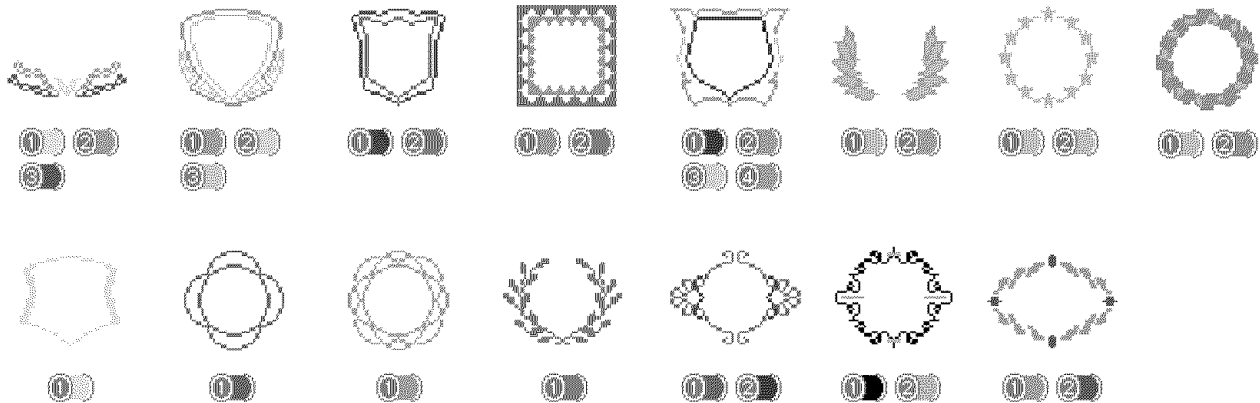


Monogram patterns

A B C D E F G H I J K
 L M N O P Q R S T U
 V W X Y Z & ? ! / - ~ . ,

A B C D E F G H I J K
L M N O P Q R S T U
V W X Y Z & ? ! / - ~ . ,





A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
 A € C Ø E F G H I J K G M N Ø E Q R S T U V W X Y Z

Alphabet patterns

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
 a b c d e f g h i j k l m n o p q r s t u v w x y z
 1 2 3 4 5 6 7 8 9 0 < > , . & ! ? ' ~ - . /
 Ä Å Ö Ü Æ Æ Ñ Ñ Ó Ó
 ä å ö ü æ œ ñ ñ ò ó ô õ ø ù

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
a b c d e f g h i j k l m n o p q r s t u v w x y z
1 2 3 4 5 6 7 8 9 0 < > , . & ! ? ' ~ - . /
Ä Å Ö Ü Æ Æ Ñ Ñ Ó Ó
ä å ö ü æ œ ñ ñ ò ó ô õ ø ù

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
a b c d e f g h i j k l m n o p q r s t u v w x y z
1 2 3 4 5 6 7 8 9 0 < > , . & ! ? ' ~ - . /
Ä Å Ö Ü Æ Æ Ñ Ñ Ó Ó
ä å ö ü æ œ ñ ñ ò ó ô õ ø ù

Layout grid patterns

