JUKI®

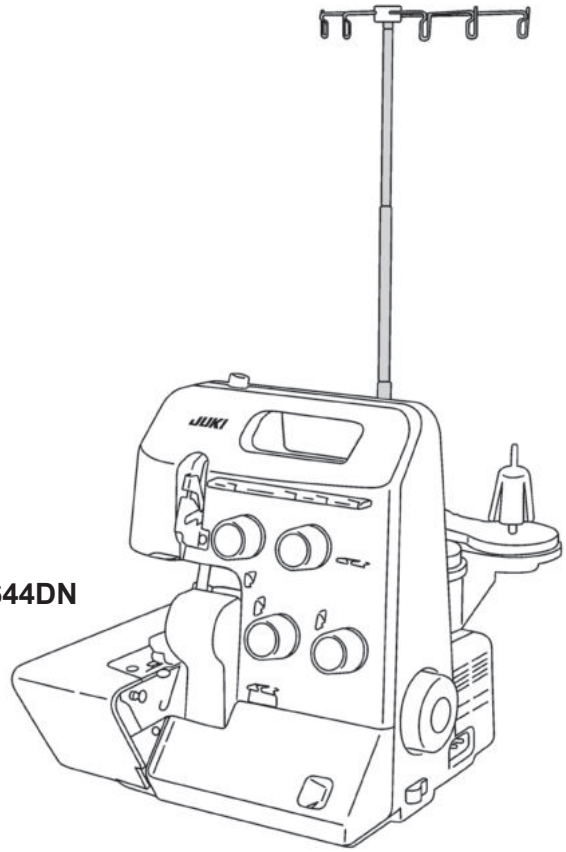
www.sewshop.eu

2-Needle, 2/3/4-Thread Overlock Sewing Machine

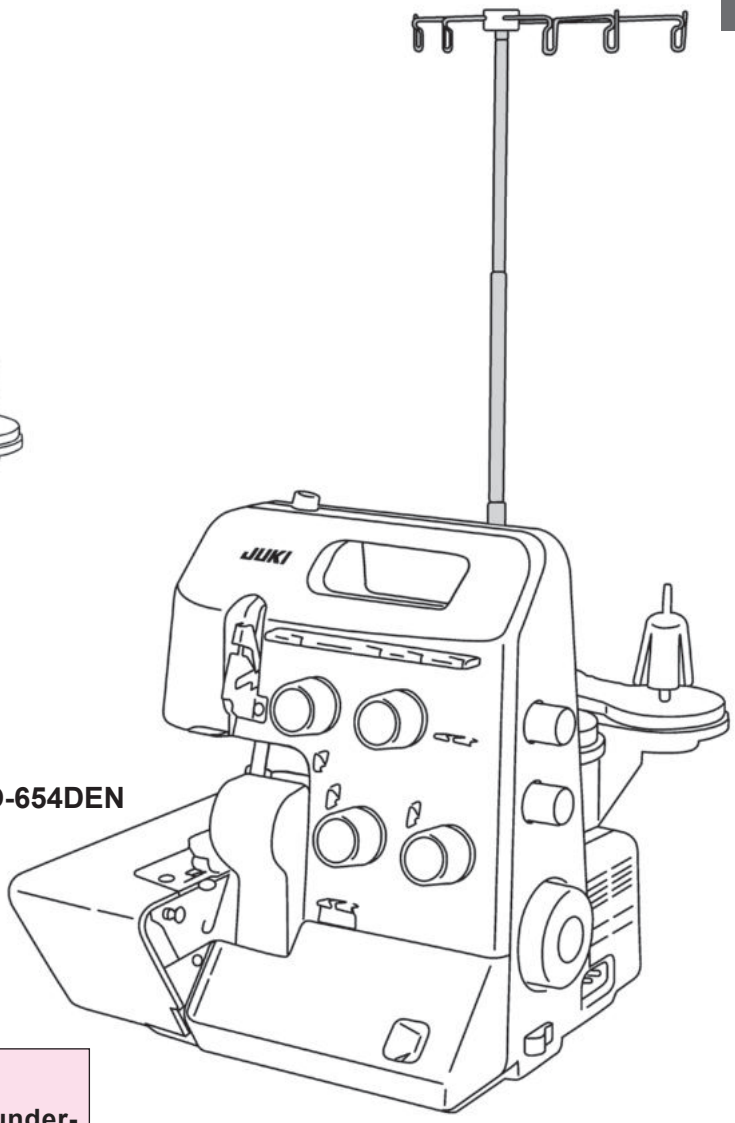
MO-644DN/654DEN

INSTRUCTION MANUAL

EN



MO-644DN



MO-654DEN

IMPORTANT:
Read all safety regulations carefully and understand them before using your sewing machine.
Retain this instruction manual for future reference.

“IMPORTANT SAFETY INSTRUCTIONS”

www.sewshop.eu

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. The appliance should never be left unattended when plugged in.
2. Always unplug this appliance from the electric outlet immediately after using and before cleaning.

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

1. Do not use the appliance as a toy. Caution is advised when the appliance is used by children, or near children. This sewing machine can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the sewing machine in a safe way and understand the hazards involved. Children shall not play with the sewing machine. Cleaning and user maintenance shall not be made by children without supervision.
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 control 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 stitch 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. Do not carry out sewing with a marking pin stuck in the material since doing so can cause knife/needle breakage. In addition, do not attempt to cut anything other than fabric and thread with the upper/lower knives.
10. Switch the sewing machine off “O” when making any adjustments in the needle area, such as threading needle, changing needle, threading looper, or changing presser foot and the like.
11. Always unplug the machine from the electrical outlet when removing covers, when covers are opened to thread the loopers, when lubricating or when making any other user servicing adjustments mentioned in the instruction manual.
12. Never drop or insert any object into any opening.
13. Do not use outdoors.
14. Do not operate where aerosol (spray) products are being used or where oxygen is being administered.
15. To disconnect, turn all controls to the off “O” position, then remove plug from outlet.
16. Do not unplug by pulling on cord. To unplug, grasp the plug, not the cord.
17. Basically, the machine should be disconnected from the electricity supply when not in use.
18. If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
19. (Except USA/Canada) This machine is provided with double insulation.
    Use only identical replacement parts. See instructions for servicing Double-Insulated machine.

“SERVICING DOUBLE-INSULATED PRODUCTS (Except USA / Canada)”

In a double-insulated product, two systems of insulation are provided instead of grounding. No grounding means is provided on a double-insulated product nor should a means for grounding be added to the product. Servicing a double-insulated product requires extreme care and knowledge of the system and should only be done by qualified service personnel. Replacement parts for a double-insulated product must be identical to those parts in the product. A double-insulated product is marked with the words DOUBLE INSULATION or DOUBLE INSULATED.
The symbol ⧈ may also be marked on the product.

“SAVE THESE INSTRUCTIONS”

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

www.sewshop.eu

Congratulations on your purchase of a JUKI sewing machine.
Please be sure to read safety precautions in “To use the sewing machine safely” in the Instruction Manual before use to fully understand the functions and operating procedures of the sewing machine so as to use the sewing machine for a long time.
After you have read the Instruction Manual, please be sure to keep it together with the warranty so that you can read it whenever necessary.

To use the sewing machine safely

Marks and pictographs included in the Instruction Manual and shown on the sewing machine are used so as to ensure safe operation of the sewing machine and to prevent possible risk of injury to the user and other people.
Warning marks are used for different purposes as described below.

⚠ **WARNING**	Indicates that there is a possible risk of death or serious injury if this mark is ignored and the sewing machine is used in a wrong manner.
⚠ **CAUTION**	Indicates the operation, etc. which can cause a possible risk of personal injury and/or physical damage if this mark is ignored and the sewing machine is used in a wrong manner.

Pictographs mean the following:

	Danger warning which is not specified		There is a risk of electrical shock		There is a risk of fire		There is a risk of injury to hands, etc.
	Prohibited matter which is not specified		Disassembly/ alteration is prohibited		Do not place fingers under the needle		Do not pour oil, etc.
	Generally required behavior		Disconnect the power plug				

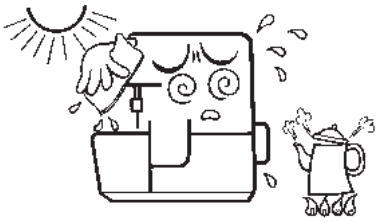
www.sewshop.eu

⚠ WARNING

For the combination of the material and the thread and needle, in particular, refer to the explanation table in “Replacement of the needle”.
If the needle or thread does not match the material used such as in the case that an extra heavy-weight material (e.g., denim) is sewn with a thin needle (#11 or higher), the needle can break resulting in an unexpected personal injury.

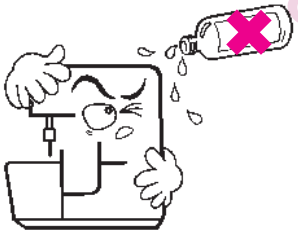
Other precautions

- Do not put the sewing machine under the direct sunlight or in a humid place.



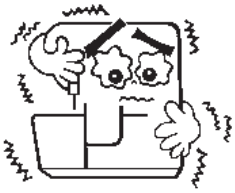
- Do not wipe the sewing machine with solvent such as thinner.

  When the sewing machine is soiled, put a small quantity of neutral detergent on a piece of soft cloth and carefully wipe off the sewing machine with it.



Be aware that the following state can take place since the sewing machine incorporates semi-conductor electronic parts and precise electronic circuits.

- Be sure to use the sewing machine in the temperature range from 5ºC to 40ºC.
  If the temperature is excessively low, the machine can fail to operate normally.



* The operating temperature of the sewing machine is between 5ºC and 40ºC. Do not use the sewing machine under the direct sunlight, near the burning things such as a stove and candle, or in a humid place. By so doing, the temperature in the interior portion of the sewing machine can rise or the coating of the power cord can melt, causing fire or electrical shock.

LED light
- Rated Voltage: 9V
- Maximum power consumption: 1.3W

Contents

Safety instructions ····· 1-3
Contents ····· 4
Details of the machine ····· 5,6
• Accessories ····· 6
Assembling thread stand ····· 7-8
Preparing the machine ····· 9
• Attaching the foot controller ····· 9
• On/Off of the power/light switch ····· 9

Operation and function

• Handwheel (Pulley) ····· 10
• Opening and closing the looper cover ····· 10
• Opening and closing the cloth plate ····· 10
• Presser foot lifter ····· 11
• Changing the presser foot ····· 11
• Raising the upper knife ····· 12
• Lower knife adjusting knob ····· 12
• Stitch length adjusting knob ····· 13
• Differential feed adjusting knob ····· 13
• Overlocking width selection knob ····· 14
• Presser foot pressure adjusting screw ····· 14
• Changing the needles ····· 15

Threading

• Preparation ····· 16
• 1. Upper looper thread (Blue) ····· 17
• 2. Lower looper thread (Red) ····· 18-19
• 3. Right-hand needle thread (Green) ····· 20
• 4. Left-hand needle thread (Yellow) ····· 21

3-thread overlocking

• 4 mm wide 3-thread Overlocking ····· 22
• 6 mm wide 3-thread Overlocking ····· 22

2/3-thread converter

• How to use the 2/3 thread converter ····· 23

Trial sewing

• After threading, make a trial sewing ····· 24

Thread tension dial ····· 24

Adjusting the thread tension ····· 25

Roll hemming

• Roll hemmer ····· 26
• Preparation for roll hemming ····· 26
• Standard thread tension list for roll hemming ····· 26

Sewing in tape ····· 27

Differential feed (MO-654DEN)

• Differential feed ····· 28

Gathering (MO-654DEN)

• Gathering ····· 29
• Unpicking seams ····· 29

Thread breakage during sewing ····· 30

Securing seams ····· 30

Maintenance

• Changing the upper knife ····· 31
• Changing the lower knife ····· 31
• Cleaning and lubricating ····· 31
• Before you call for help: Trouble and corrective measures ····· 32

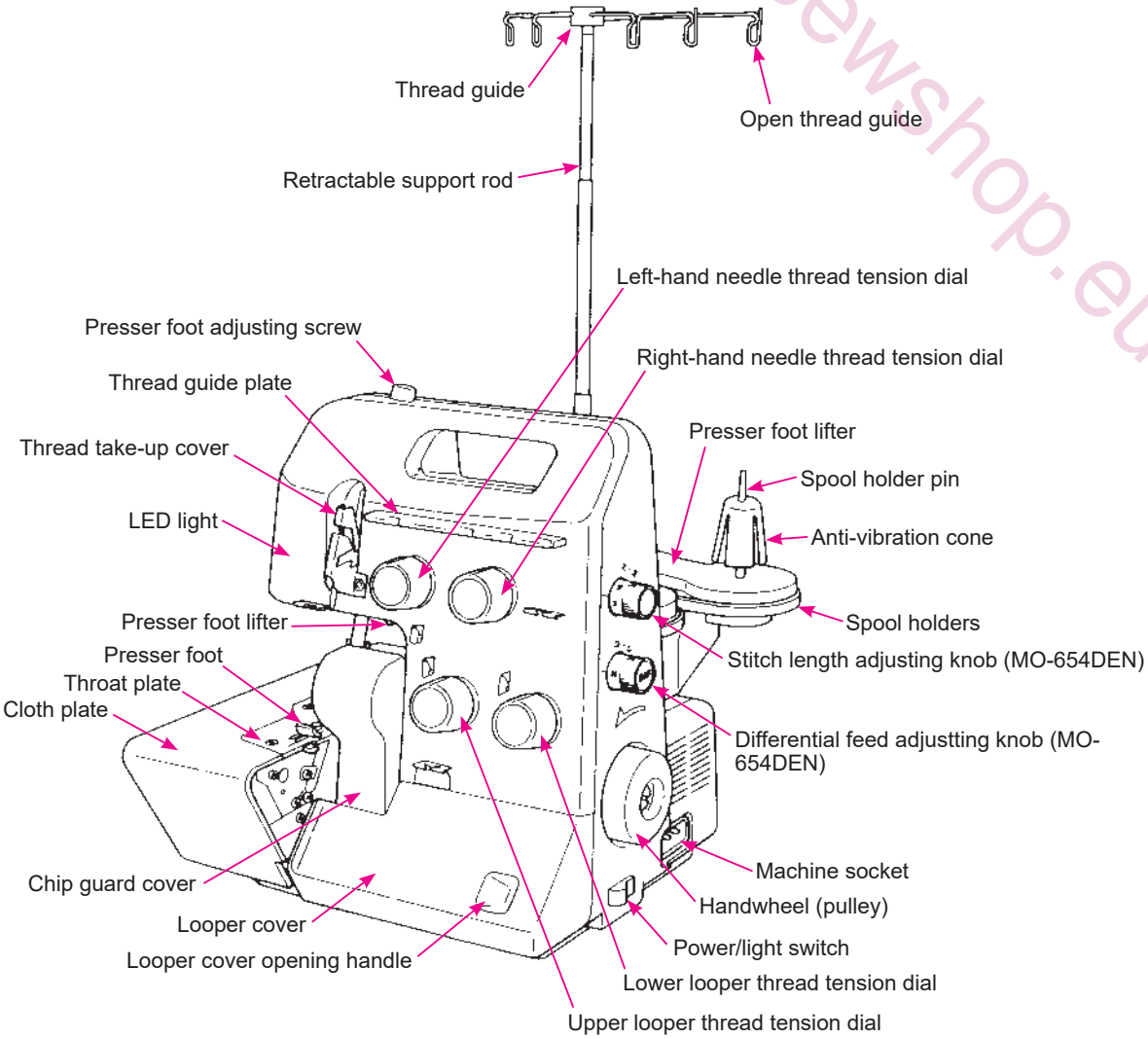
Specifications ····· 33

Optional Accessories ····· 34

www.sewshop.eu

Details of the machine

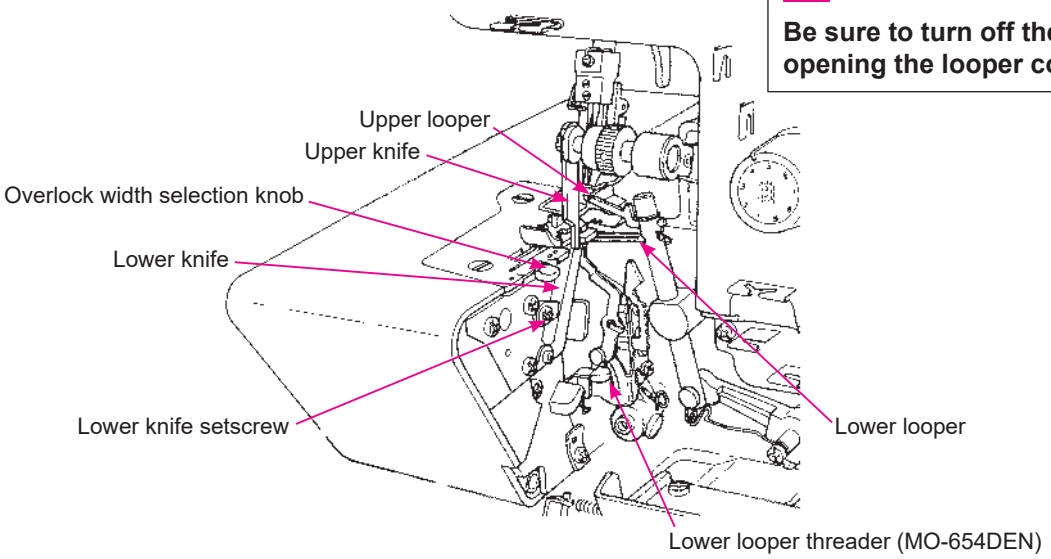
Details of the machine



View with looper cover open

⚠ CAUTION :

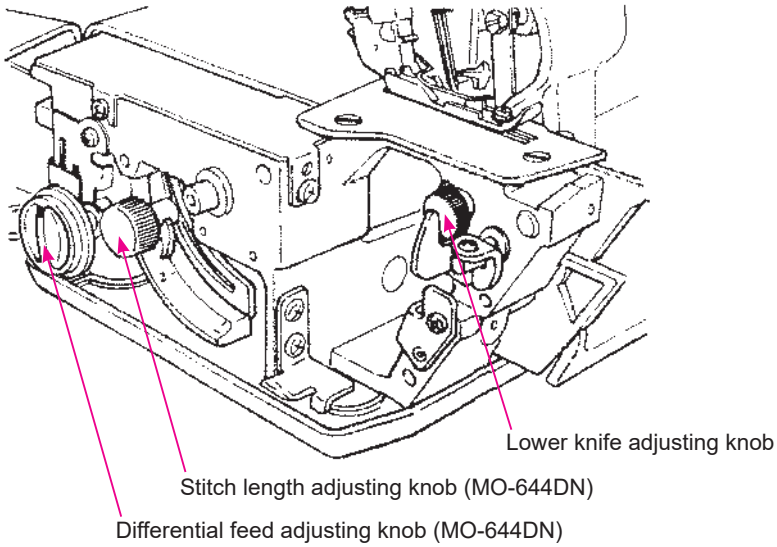
Be sure to turn off the power switch before opening the looper cover.



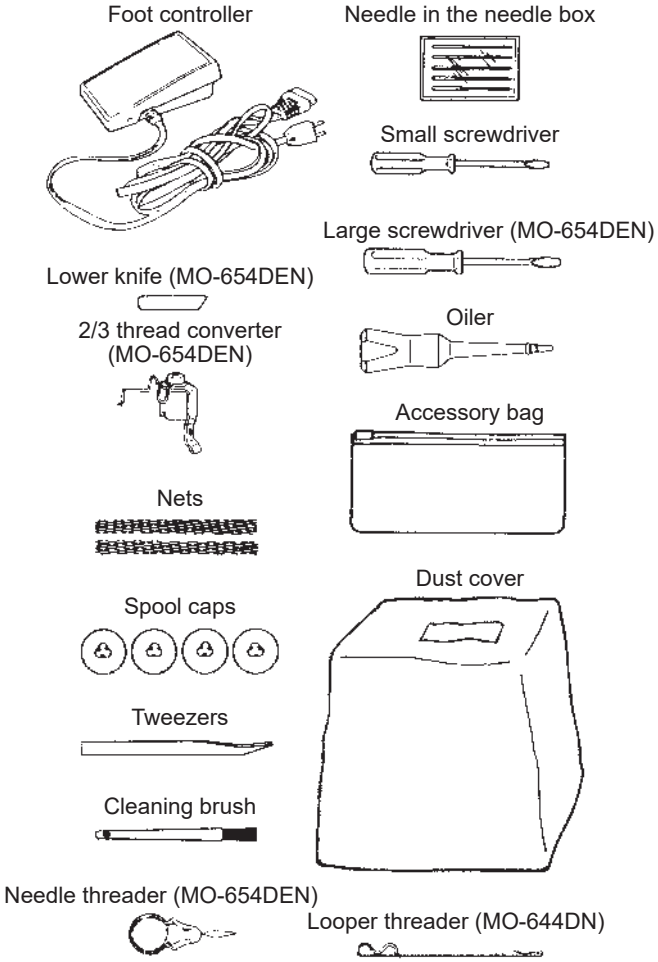
www.sewshop.eu

Details of the machine

View with cloth plate open



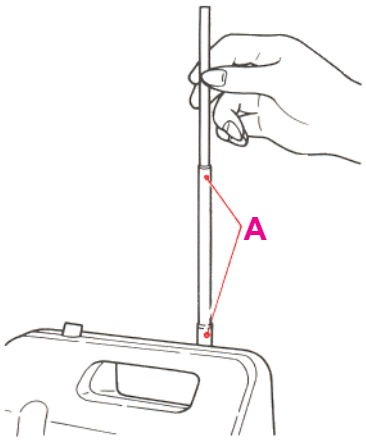
Accessories



www.sewshop.eu

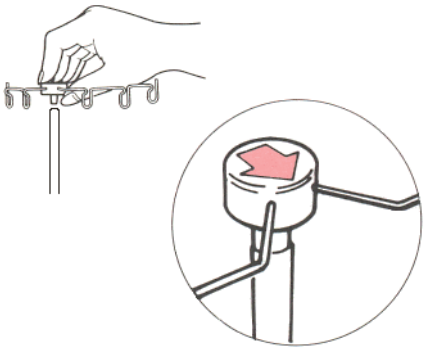
Assembling thread stand

www.sewshop.eu



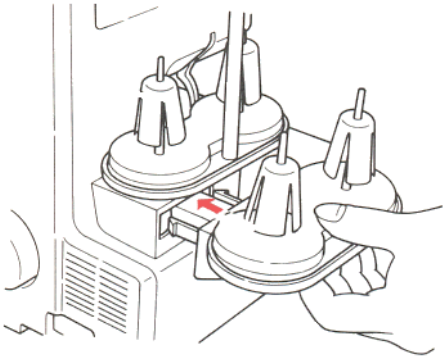
Raise the support rod fully

Turn the thread stand until it engages the positioning stopper (**A**) with a click.



Put the thread guide on the support rod

Insert the thread guide into the tip of the support rod so that the arrow in the thread guide comes in front of you.

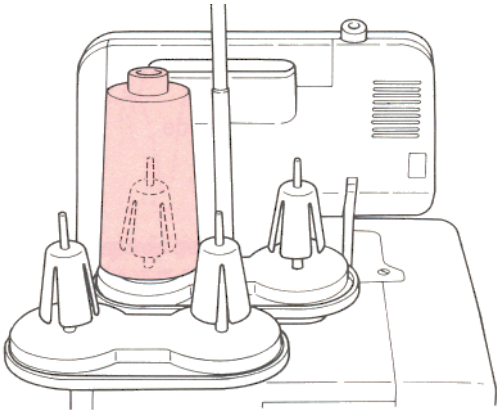


Attaching the spool holders

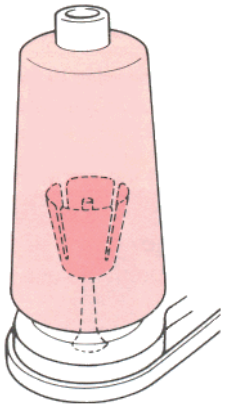
Attaching the separately packed spool holder (equipped with two spool holders) to the fixed spool holder.

Assembling thread stand

www.sewshop.eu

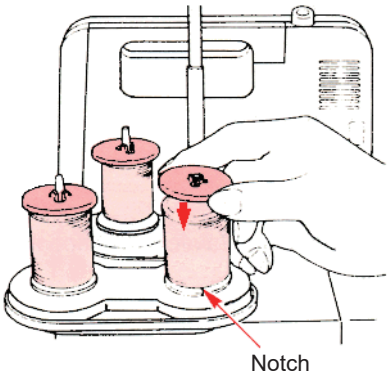


For overlock spools



For large spools

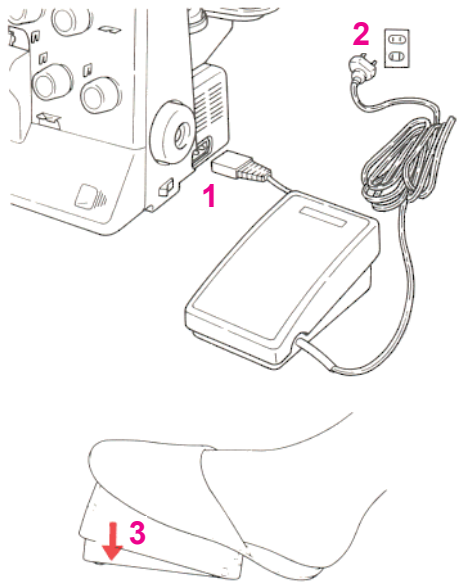
For spools of large inside diameter, position the anti-vibration come upside down.



For small house-use spools

When using house-use spools, remove the anti-vibration cones. Place a spool on the spoolholder with its notch downward and push the spool caps on with the rounded outside edge at the bottom.

Preparing machine



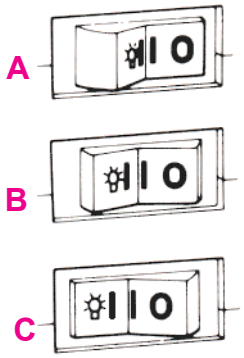
Attaching the foot controller

1. Plug foot controller into machine socket.
2. Plug foot controller into power supply socket.
3. Lay your foot on the foot controller.
   Step on the foot controller strongly (deeply), and the sewing speed increases.
   Step on the foot controller lightly (shallowly), and the sewing speed decreases.

⚠ CAUTION :

Be sure to turn OFF the power switch before plugging/unplugging the controller.

MO-654DEN



On/Off of the power/light switch

A Pressing O turns the power switch off.

B Pressing I turns the power switch on, and sewing operation is performable. The sewing light remains off.

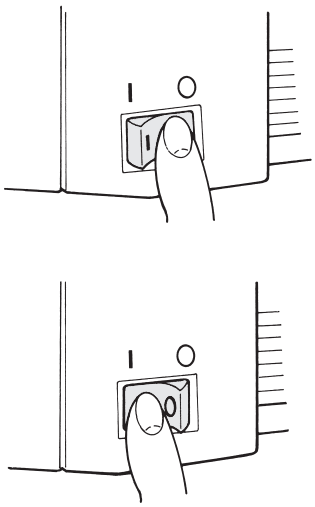
C Pressing ☼I turns on both the power switch and sewing light.

⚠ CAUTION :

Perform these following steps when you are not using your sewing machine.

1. Turn the power/light switch off. (Press O side).
2. Be sure to remove the power plug from the wall outlet.
3. Do not place a thing on the foot controller.

MO-644DN



On/Off of the power/light switch

The power/light switch is conveniently placed on the handwheel side of the machine in front of the socket.

O = Off

I = On with light

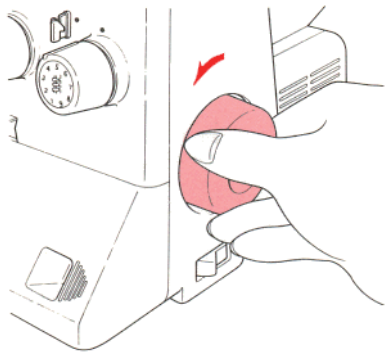
⚠ CAUTION :

Perform these following steps when you are not using your sewing machine:

1. Be sure to turn OFF the power switch.
2. Be sure to remove the power plug from the wall outlet.
3. Do not place a thing on the foot controller.

www.sewshop.eu

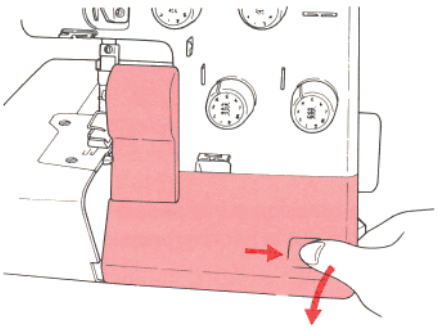
www.sewshop.eu



Handwheel (Pulley)

The handwheel turns toward you.

* Upon completion of threading, at sewing start or sewing end, be sure to turn the handwheel toward you.



Opening and closing the looper cover

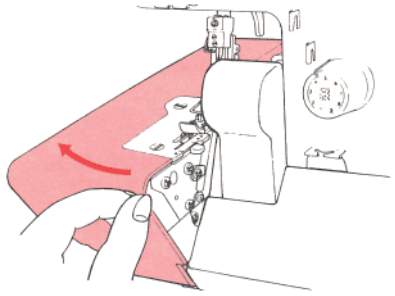
Opening: To open the looper cover, pull the looper cover opening handle to the right, and tilt the looper cover toward you.

Closing: To close the looper cover, push up the looper cover, press it lightly to the right. The looper cover closes automatically.

Switch the machine off (power switch ”O”)

CAUTION :

[MO-654DEN]
For safety, the power is automatically cut off when you open the looper cover or the cloth plate.



Opening and closing the cloth plate

Opening: Press the cloth plate toward the outside.

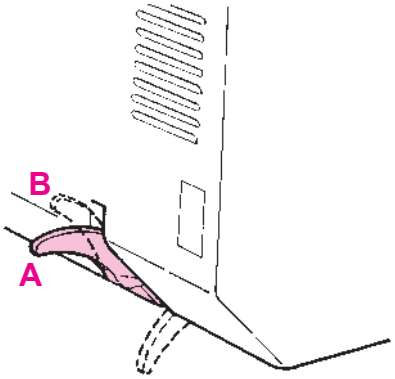
Closing: Push the cloth plate toward the sewing machine.

Switch the machine off (power switch ”O”)

CAUTION :

[MO-654DEN]
For safety, the power is automatically cut off when you open the looper cover or the cloth plate.

www.sewshop.eu



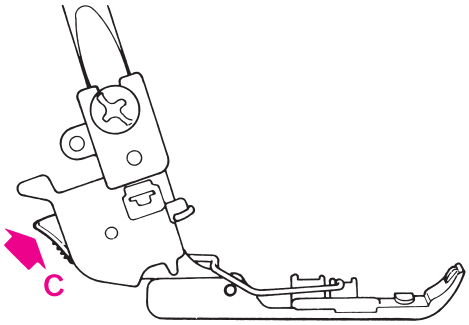
Presser foot lifter (To raise the presser foot by the presser foot lifter)

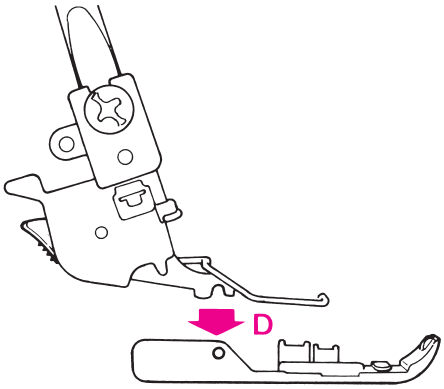
A For regular sewing operation (sewing a medium-weight material), raise the presser foot to position (**A**) illustrated in the figure.

B When you sew a heavy-weight material, raise the presser foot to position (**B**) illustrated in the figure, to provide more space between presser foot and throat plate.

WARNING :

When using the extra lift (B), do not run the machine or turn the handwheel.



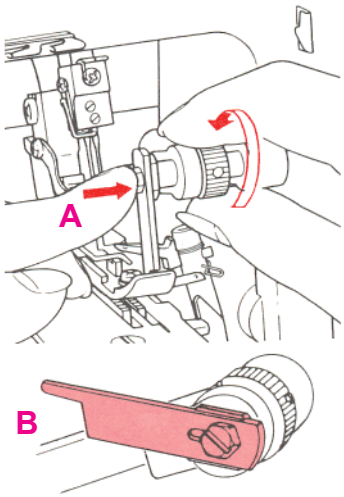


Changing the presser foot

Be sure to turn the power switch OFF.

1. Raise the presser foot.
2. Turn the handwheel until the needles are fully raised.
3. Press point (**C**) illustrated in the figure, and the presser foot will be released.
4. To release the presser foot, raise the presser foot lifting lever to its highest position. Then you can release the presser foot easily.
5. To attach the presser foot, place it so that presser foot pin comes exactly under the groove in the holder (**D**). Lower the presser foot lifting lever and the presser foot will en gage automatically.

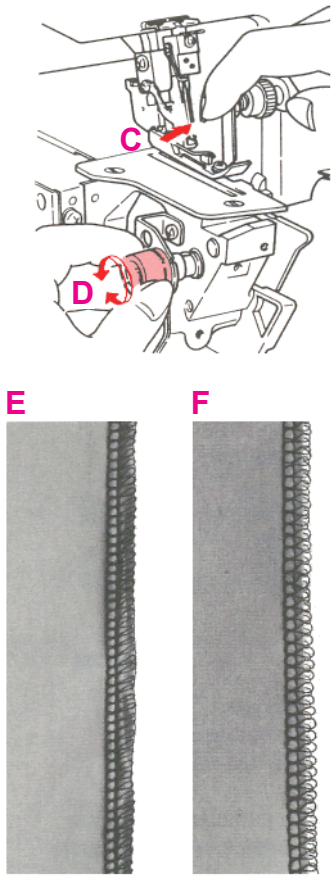
www.sewshop.eu



Raising the upper knife

Be sure to turn the power switch OFF.

1. Turn the handwheel until the upper knife is fully raised. Open the looper cover.
2. Press the part indicated as (A) in the figure toward the right until it will go no further.
3. Keep pressing (A) and turn the knob on the right side in the direction of the arrow.
4. Turn the knob until the knife reaches position (B).



Lower knife adjusting knob

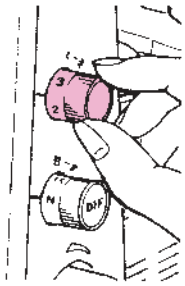
(adjusting the lower knife position for cutting width)

Be sure to turn the power switch OFF.

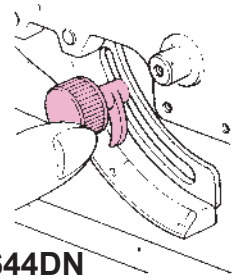
Turn the lower knife adjusting knob by pressing part (C) in the figure.

- (E): If the edge of the sewing materialcurls, set the lower knife adjusting knob (D) to smaller value on the scale.
- (F): If the remaining thread is too long for the edge of the material, set the lower knife adjusting knob to larger value on the scale.

www.sewshop.eu



MO-654DEN



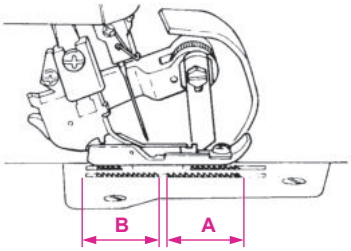
MO-644DN

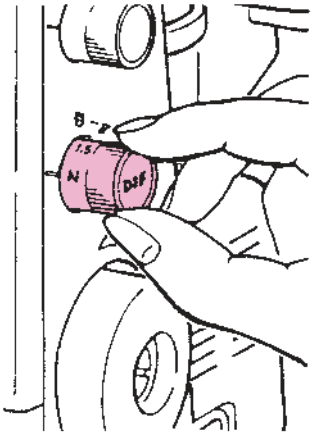
Stitch length adjusting knob (to adjust the stitch length)

Stitch length is adjustable within the range from 1 to 4.

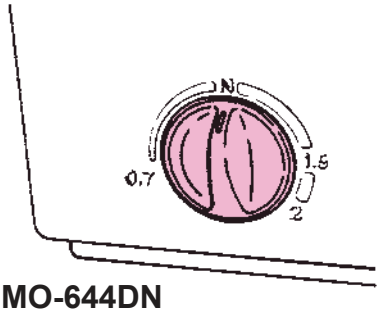
To adjust the stitch length, turn the stitch length adjusting knob and move the knob upwards or downwards.

* For normal overlocking stitches set the stitch length adjusting knob at 2 to 3.





MO-654DEN



MO-644DN

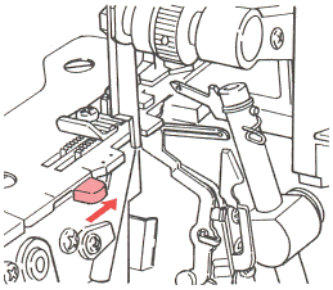
Differential feed adjusting knob

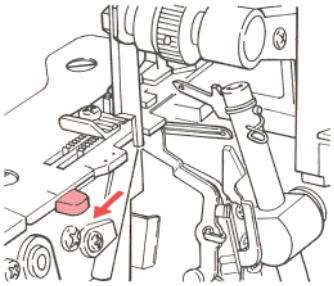
(to adjust the feeding for gathering or stretching)

To adjust feeding for gathering or stretching, turn the differential feed adjusting knob upward or downward.

The differential feed prevents fluting or waving in seams in stretchy materials by differentiating the feed of the front feed dog (A) and rear feed dog (B).

www.sewshop.eu



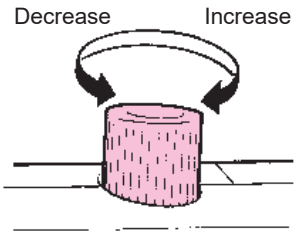


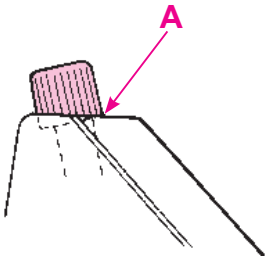
Overlocking width selection knob

(for overlocking or roll hemming)

* Turn the handweel until the needles are fully raised.

- For overlocking:
  Push the overlocking width selection knob back so that it aligns with the rear red marking on the throat plate.
- For roll hemming:
  1. Pull the overlocking width selection knob forward so that it aligns with the front red marking on the throat plate.
  2. Set the lower knife adjusting knob at “1 - 2”.





Presser foot pressure adjusting screw

Pressure of the presser foot has been factory-adjusted properly. Therefore you do not need to adjust it except when sewing a special material.

- To increase the pressure of the presser foot:
  For heavy-weight materials such as denim, tweed, or hard linen.
- To decrease the pressure of the presser foot:
  For light-weight materials such as geor-gette, lawn,or tricot.

(A) Standard position: The place where the lower part of control cap aligns with the upper face of cover.

www.sewshop.eu

Changing the needles

Be sure to turn the power switch OFF.

- Applying the needle attaching hole (A) of the cleaning brush will help replace the needle ease.

1. Turn the handwheel until the needle are fully raised.
2. Before Changing the needles, lower or remove the presser foot.
3. Using the small screwdriver, loosen the needle setscrews and remove the needles.
4. First insert the right-hand needle with the flat side away from you into the needle clamp, making sure it is inserted as far up as possible. Tighten the needle clamp setscrews securely. Insert the left-hand needle in the same way.

Needles used	Type of needles	Thickness
Right-hand needle	Household type 130/705H	No.75/11
Left-hand needle	130/705H (JL × 2)	

* When you buy the needles for the sewing machine, select the above type of the needles.

* Apply a JL × 2 needle to the left-hand side needle when sewing heavy-weight materials.

Threading

www.sewshop.eu

Be sure to turn the power switch OFF.

Thread the machine carefully and in the correct sequence. This is important for marking beautiful seams.

Preparation

1. Retractable support rod with thread guide must be fully raised.
2. Open the looper cover and cloth plate.
3. Turn the handwheel toward you until the needles are fully raised.
4. Raise the upper knife.

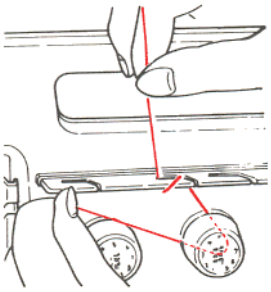
Threading sequence

Colored threading illustrations affixed clearly show the threading sequence.

Thread the machine in the following sequence:

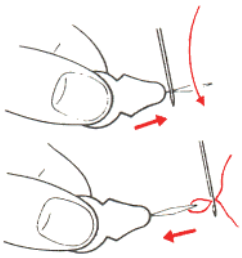
1. Upper looper thread (Blue)
2. Lower looper thread (Red)
3. Right hand needle thread (Green)
4. Left hand needle thread (Yellow)

Threading aids such as tweezers, needle threader, and looper threader which are provided as accessories will be very useful in threading work.



Thread the tension dials

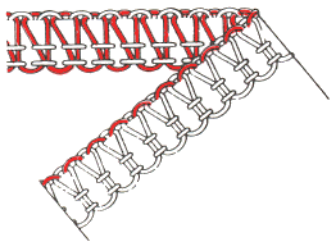
To lay the thread correctly between the tension discs, pull the thread lightly with both hands.

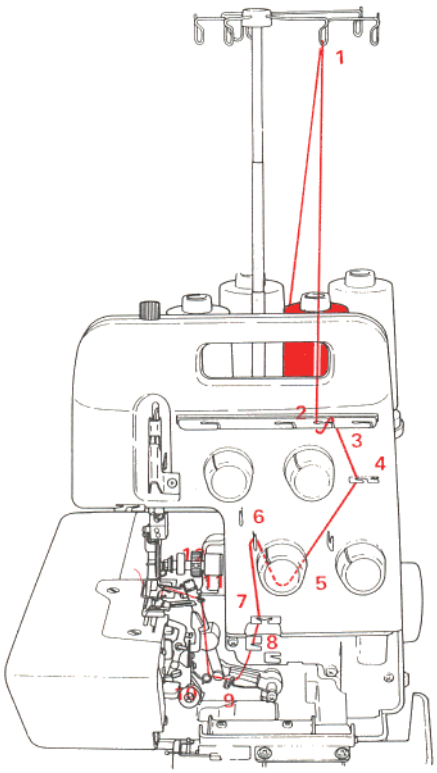


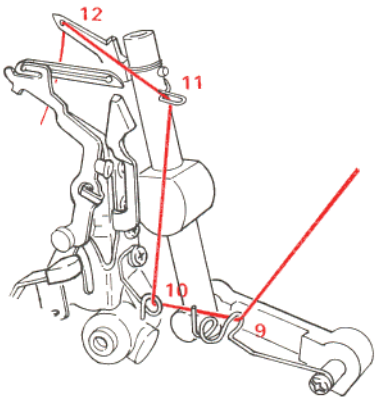
Needle threader

Insert the needle threader through the needle eyelet or looper eyelet, then thread the needle threader. Now pull the needle threader back until it comes of the eyelet.

www.sewshop.eu







1. Upper looper thread (Blue)

Place the spool on the spool holder pin right under blue marking on the retractable support rod thread guide.

(1) Bring thread up from the rear of the retractable support rod thread guide with blue marking.

(2,3) Pass the thread through the thread guide plate.

(4) Bring the thread on to the thread guide.

(5) Lay the thread between the thread tension dial discs.

(6,7,8,9,10,11) Thread the thread guides.

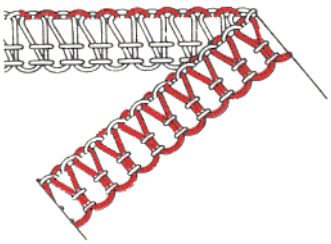
(12) Turn the handwheel until the upper looper is fully raised.
Thread upper looper eye.

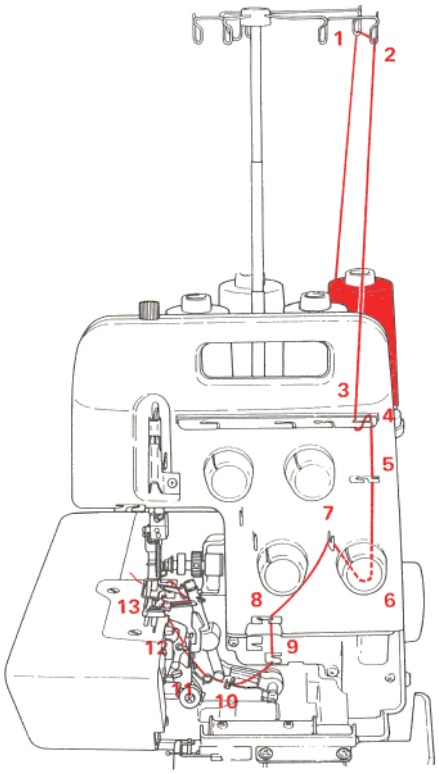
(13) Pull about 10 cm of the thread out.
Place the thread under the presser foot, and pull the thread frombehind the presser foot.

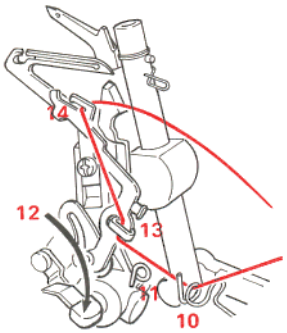
Use a net for a hard twisted thread

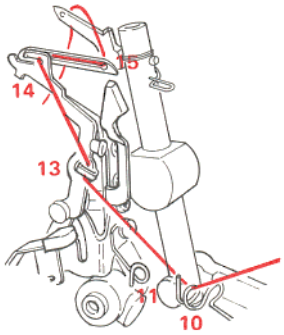
When a thread coils around the thread guide due to its hard twist, cover the spools of upper looper and lower looper with attached nets.

www.sewshop.eu









2. Lower looper thread (Red)

Place the spool on the spool holder pin right under red marking on the retractable support rod thread guide.

(1,2) Bring thread up from the rear of the retractable support rod thread guide to the front of it.

(3,4) Pass the thread through the thread guide plate.

(5) Bring the thread on to the thread guide.

(6) Thread the thread tension dial.

(7,8,9,10,11) Thread the thread guides.

(12) Raise the needle fully and press the lever of the threading device down.

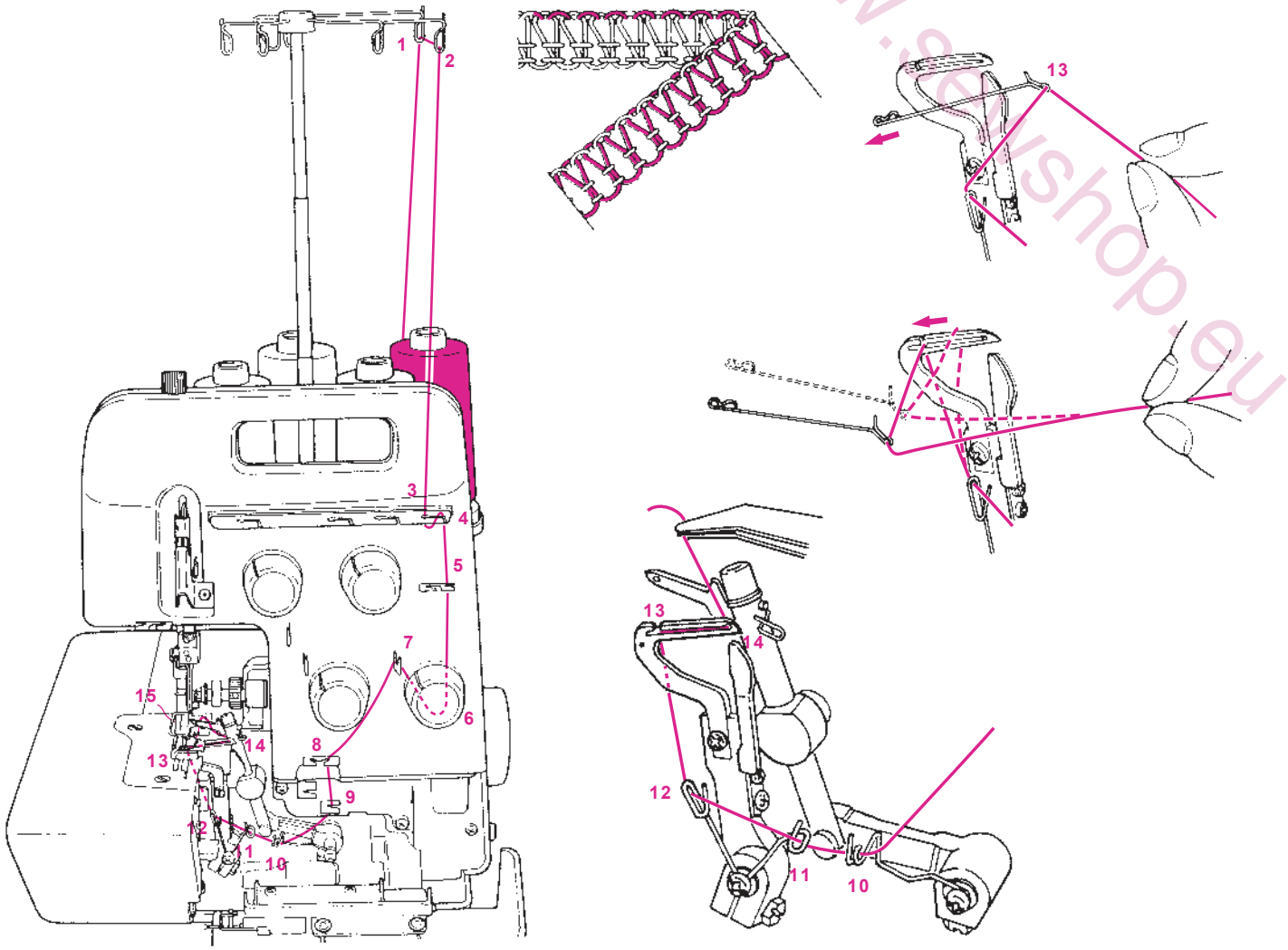
MO-654DEN only:

(13,14) Thread the guide and then the slit on the device. Holding the thread loosely with the left hand, turn the handweel until upper and lower loopers just cross. The threading device will automatically return to the normal position.

(15) Thread the lower looper eye and place thread under the presser foot.

* If the lower looper thread is broken or slipped, cut the both needle threads off at the needle. Then remove the thread.
Thread the lower looper and then the needles.

www.sewshop.eu



MO-644DN only:

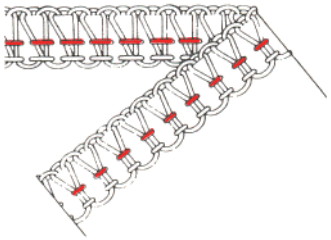
(13) Using the looper threader, pass the threader from the right through to the left of the sewing machine. Turn the handwheel toward you until the lower looper is in the left-most position. Insert the thread into the slit on the lower looper.

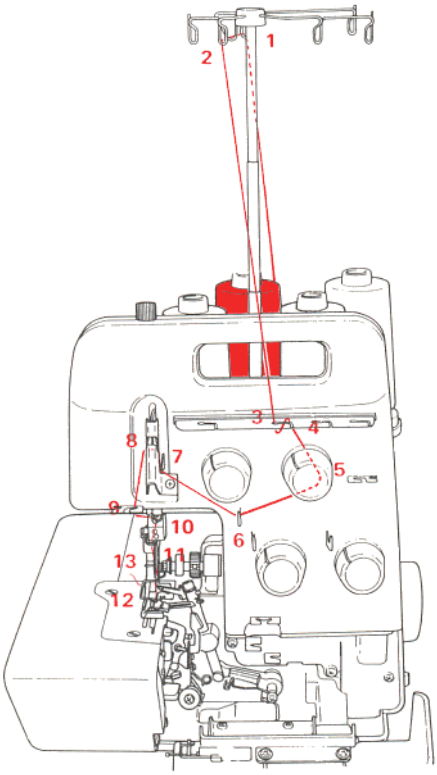
(14) Using the looper threader, pull the thread through to the right side again. Turn the handwheel toward you until the lower looper is in the right-most position, and thread the looper eye. Pull the thread up until it lies in the long groove on the lower looper.

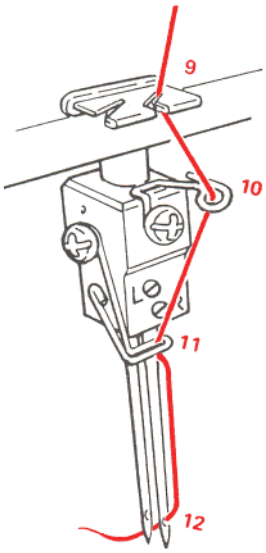
(15) Pull about 10 cm of the thread out through the upper looper. Raise the presser foot, place the thread under it and then lower the presser foot.

* If the lower looper thread is broken or slipped, cut the right and left-hand needle threads off at the needle. Then remove the threads. Thread the lower looper and then the needles.

www.sewshop.eu







3. Right-hand needle thread (Green)

Place the spool on the spool holder pin right under the green marking on the retractable support rod thread guide.

(1,2) Bring thread up from the rear of the retractable support rod thread guide with the green markings to the front of it.

(3,4) Pass the thread through the thread guide plate.

(5) Thread the thread tension dial.

(6,7) Thread the thread guide.

(8) Lay the thread in the notch on the thread take-up lever.

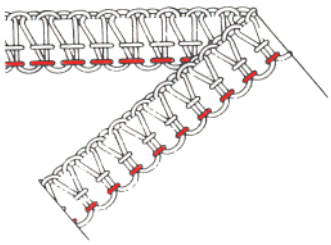
(9) Thread the thread guide.

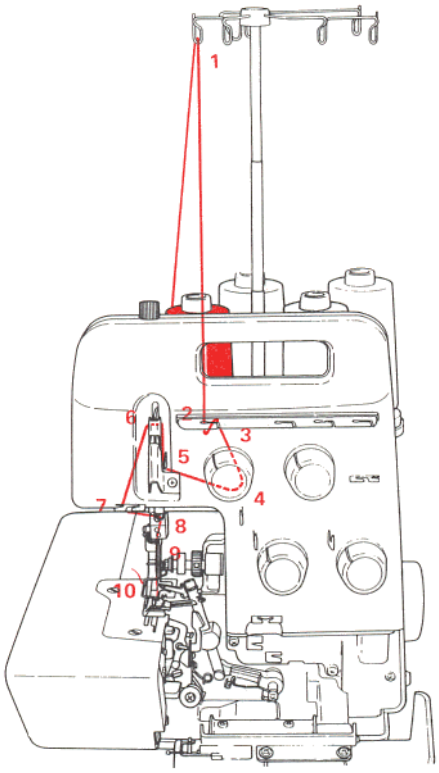
(10,11) Thread the thread guides on the needle bar.

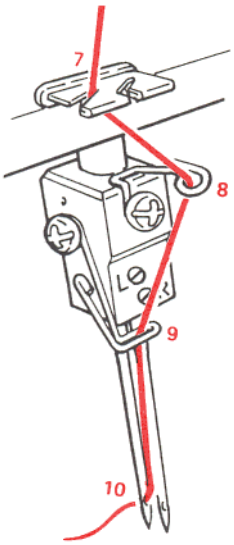
(12) Turn the handweel toward you until the needles are fully raised. Thread the right-hand needle.

(13) Bring the thread through under the presser foot and pull about 10 cm of the thread out behind the presser foot.

www.sewshop.eu







4. Left-hand needle thread (Yellow)

Place the spool on the spool holder pin right under the yellow marking on the retractable support rod thread guide.

(1) Bring thread up from the spool to the thread guide and take it through the yellow thread guide.

(2,3) Thread the thread guide.

(4) Thread the thread tension dial.

(5) Thread the thread guide.

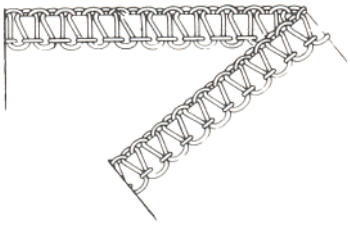
(6) Lay the thread in the notch on the thread take-up lever.

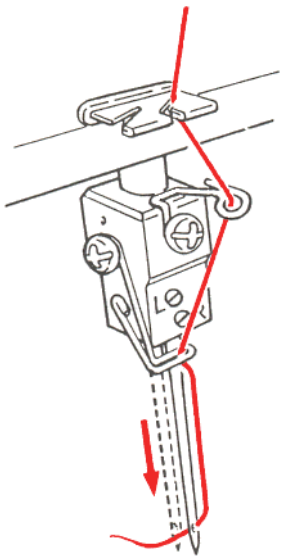
(7,8,9) Thread the thread guides.

(10) Thread the left-hand needle. Pull about 10 cm of the thread out from the needle eye.

When threading is completed, lower the upper knife and close the looper cover and cloth plate.

3-thread overlocking





4 mm wide 3-thread Overlocking (Right-hand needle) (Blue, red and green)

* Remove the left-hand needle.

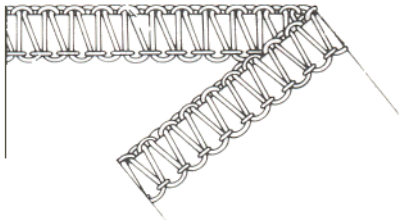
Thread in the following order.

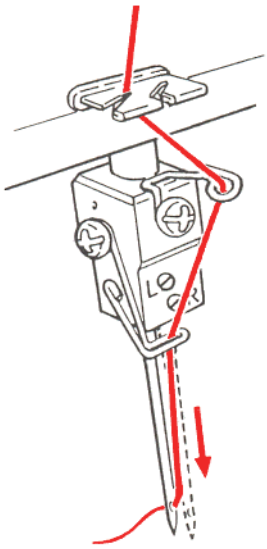
(1) Upper looper thread (Blue)

(2) Lower looper thread (Red)

(3) Right-hand needle thread (Green)

* If the machine is already threaded with the left-hand needle thread, cut off and remove the thread.





6 mm wide 3-thread Overlocking (Left-hand needle) (Blue, red and yellow)

* Remove the right-hand needle.

Thread in the following order.

(1) Upper looper thread (Blue)

(2) Lower looper thread (Red)

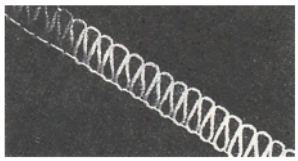
(3) Left-hand needle thread (Yellow)

* If the machine is already threaded with the right-hand needle thread, cut off and remove the thread.

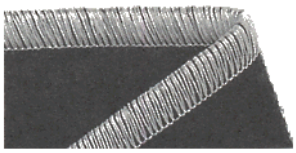
www.sewshop.eu

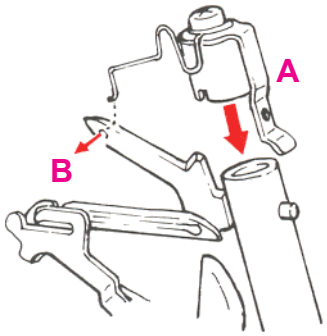
www.sewshop.eu

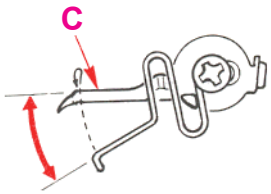
2-thread flatlock

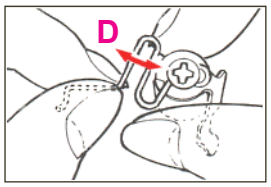


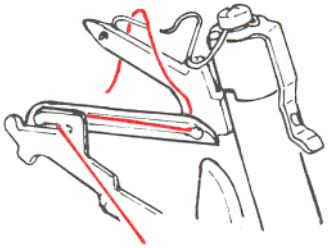
2-thread wrapped overlock











How to use the 2/3 thread converter:

Be sure to turn the power switch OFF.

* This attachment enable the 1-needle type machine to perform overedging or decorative-stitching for 1-ply fabric. It enables the 2-needle type machine to perform 3-thread super stretch stitching.

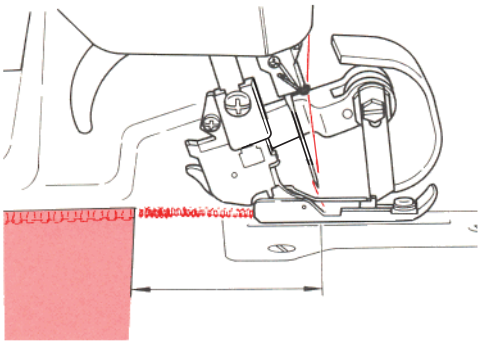
(1) Remove the upper looper thread, and insert the 2/3 thread converter (separately available) into the top section (A) of the upper looper shaft and fit wire (B) into the hole in the upper looper.

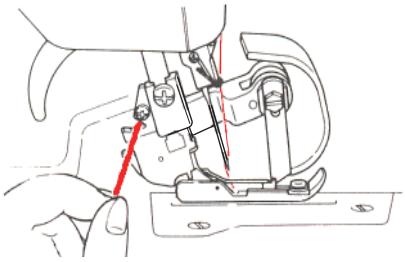
Upper looper (C) : Press the springy wire backward until its top end fits in the hole in the upper looper.

(D) : If the wireis not sufficiently springy or it cannot be fitted in the hole in the upper looper smoothly, adjust the curved section of the wire.

(2) To thread the machine head, pass the lower looper thread above the wire of the 2/3 thread converter and route it down under the presser foot.

Trial sewing





After threading, make a trial sewing

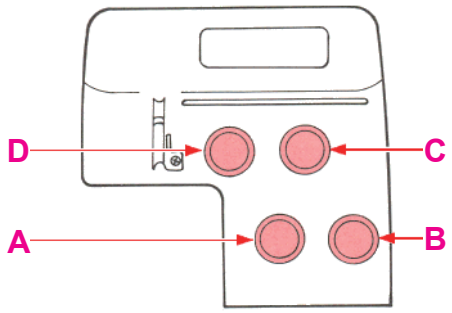
Be sure to use a double layer of fabric in order to check whether the seam and thread tension are adequate.

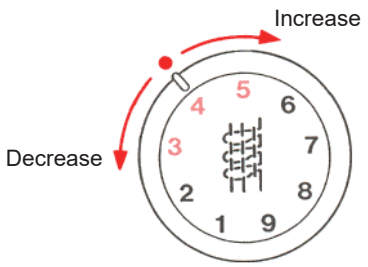
1. Set the lower/upper looper, left-hand/right-hand needle thread tension dial “4”.
2. Make sure that the upper knife is lowered (in the cutting position).
3. Raise the presser foot.
4. Place the fabric under the presser foot.
5. Lower the presser foot and sew.
6. At the end of the seam, continue sewing to from a 5 to 6 cm long thread chain.
7. Holding the fabric with one hand, pull the thread chain over the thread cutter on the presser foot shank.

* Thread tension dial should be properly adjusted according to the types of fabrics and threads to be used.

www.sewshop.eu

Thread tension dial





Adjusting the thread tension

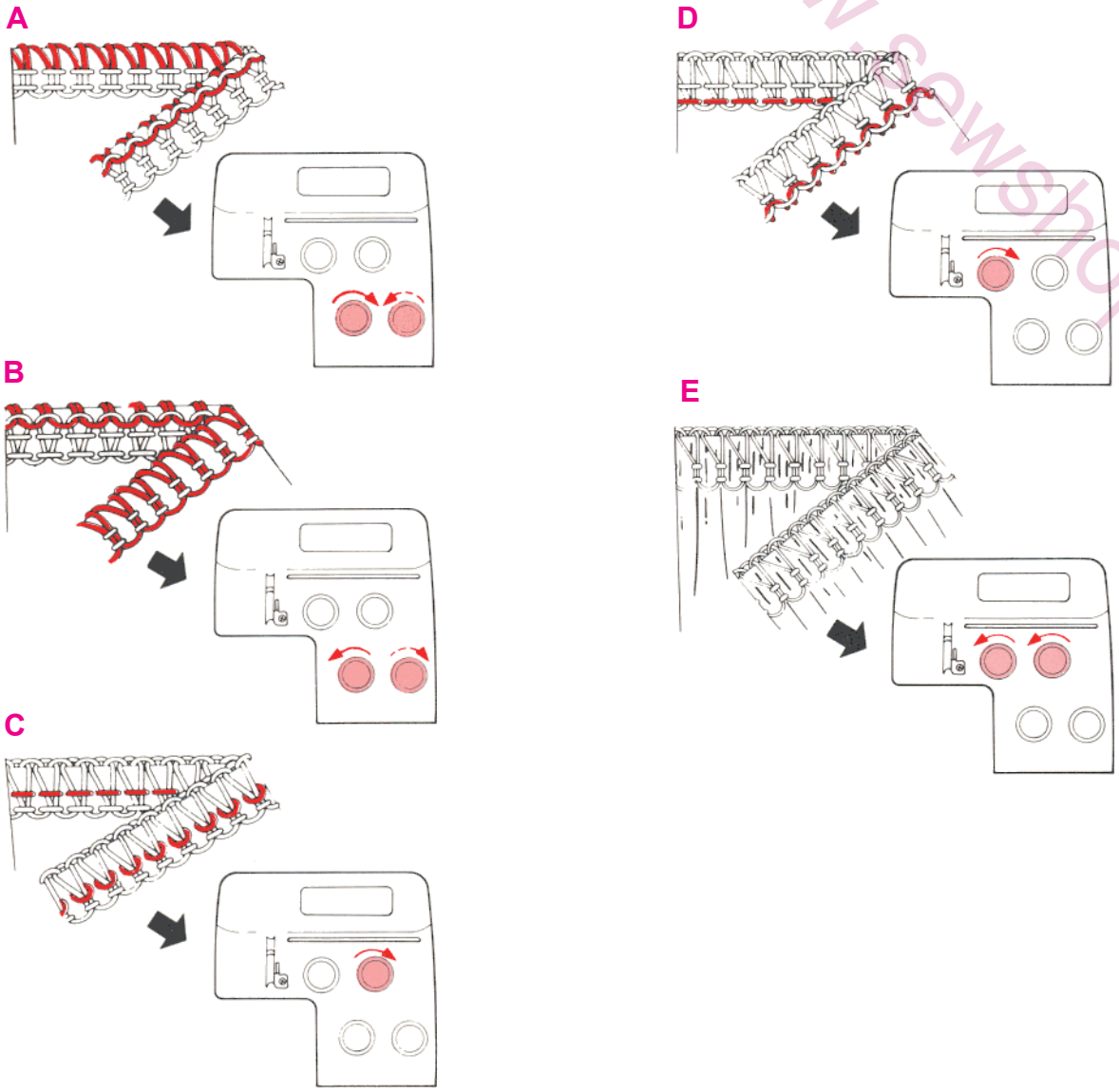
Imperfect stitch formation can be corrected by adjusting the set value (1 to 9) on the thread tension dial.

		Standard of the thread tensioner dial
A	Upper looper thread tension adjusting dial	3 - 5
B	Lower looper thread tension adjusting dial	3 - 5
C	Right-hand needle thread tension adjusting dial	3 - 5
D	Left-hand needle thread tension adjusting dial	3 - 5

* When using filament thread or wooly nylon thread, adjust the thread tension accordingly.

Adjusting the thread tension

www.sewshop.eu



Adjusting the thread tension

Turn the thread tension dial in the direction of the arrow, and make a trial sewing.

A: If the upper looper thread meet on the underside of the fabric.

B: If the lower looper thread meet on the upper side of the fabric.

C: If the right-hand needle thread forms loops on the underside of the fabric.

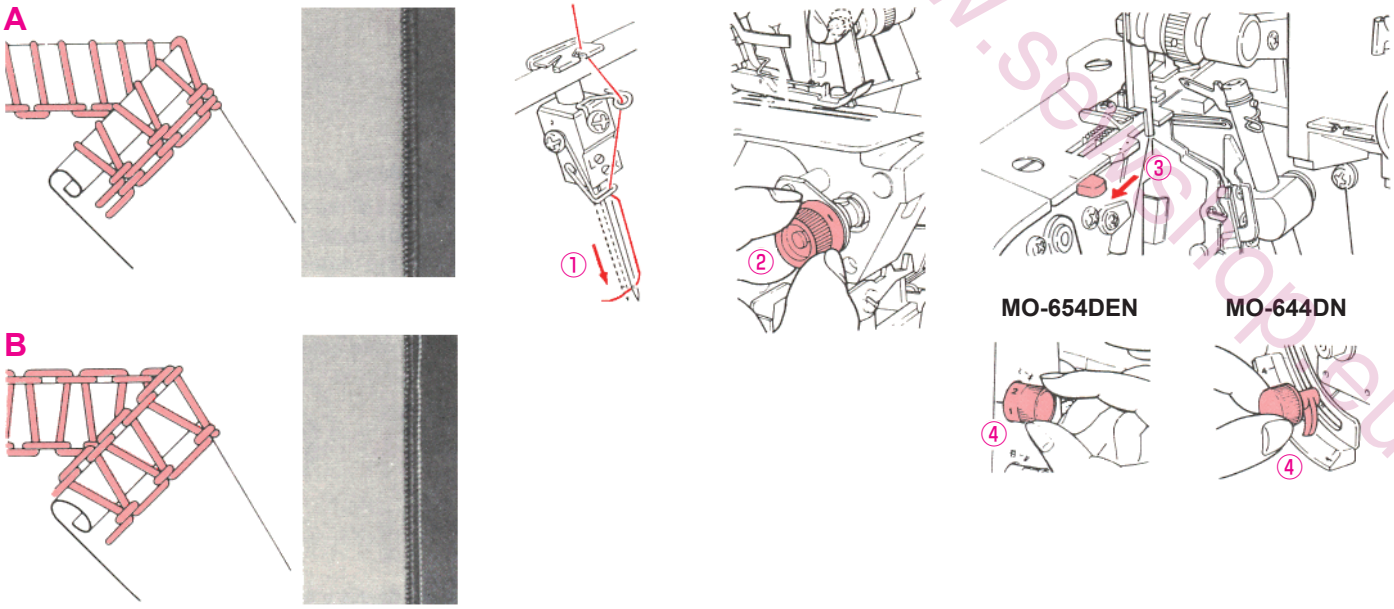
D: If the left-hand needle thread forms loops on the underside of the fabric.

E: If the fabric puckers during sewing.

* Adjustment can be made by setting the lowerknife adjusting knob to the smaller value on the scale.

Roll hemming

www.sewshop.eu



Roll hemmer

The roll hemmer is built-in to the sewing machine. The fabric edge is automatically rolled and oversewn. The result is a very fine and narrow edge finishing.

Preparation for roll hemming:

1. Remove the left-hand needle and thread the machine as for 3-thread overlocking.
2. Set the lower knife adjusting knob at “1 - 2”.
3. Turn the overlocking width selection knob toward you to align with the red marking in front of the throat plate.
4. Set the stitch length adjusting knob at “1 - 1.5”.

* Adjust the thread tensions as desired.

(A): Rolled hem

Rolled hemming stitch sews the fabric edge with the upper looper thread.

(B): Narrow overlock stitch

Narrow overlock stitch is to sew normal overlock stitches of which cutting width is narrower than usual.

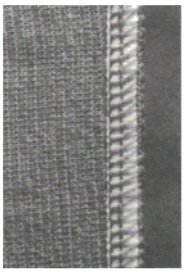
Standard thread tension list for roll hemming (rolled hem, narrow overlock sitich)

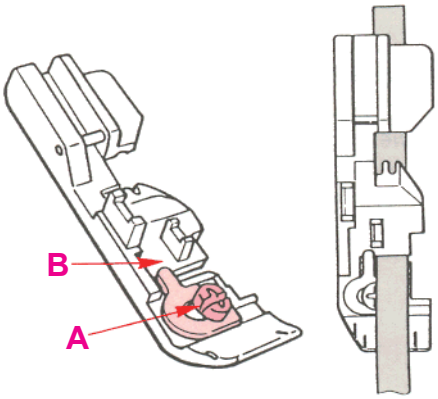
- Thread tension slightly differs depending on the types of the fabric and thread.
- Use the woolly nylon thread or thinner thread for roll hemming to attain the beautiful finish.
- Use the thin spun thread thinner than #80.
- Woolly nylon thread can be used only for the upper looper.

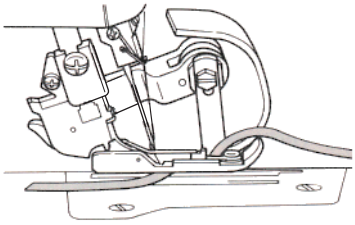
* Adjust the thread tension as desired.

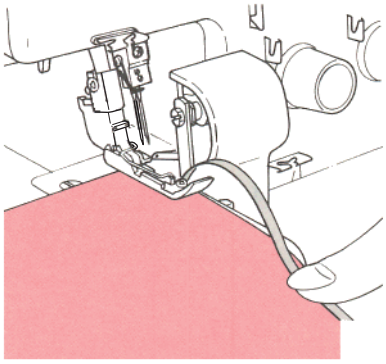
Thread tension dial value / Thread to be used	For rolled hem			For narrow overlock stitch		
	Right-hand needle	Upper looper	Lower looper	Right-hand needle	Upper looper	Lower looper
Spun thread #80	4 - 6	3 - 5	7 - 9	4 - 6	5 - 7	4 - 6
Filament thread #80	3 - 5	3 - 5	6 - 8	3 - 5	3 - 5	3 - 5
Wooly nylon thread		3 - 5			3 - 5	

www.sewshop.eu







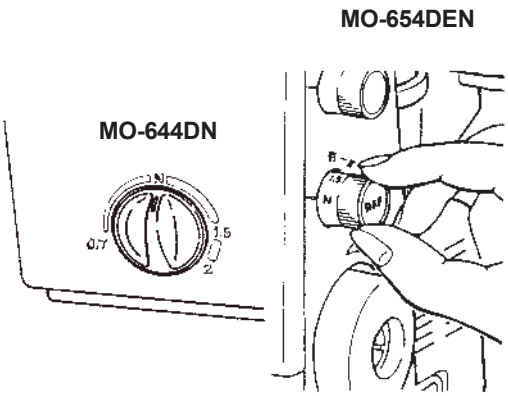


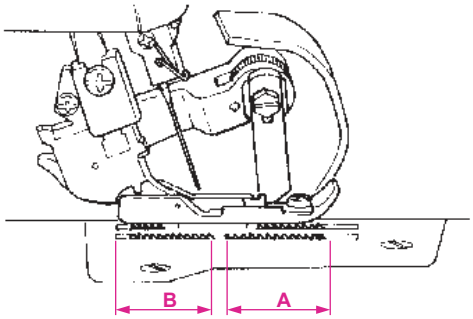
Sewing in tape

The standard presser foot is equipped with a tape guide. When sewing shoulders or side seams of stretchy fabrics as a knitted fabric, a tape works effectively to prevent undesirable stretch of the fabric.

1. Turn the handwheel toward you until the needles are fully raised.
2. Raise the presser foot, place the tape in the groove on the presser foot, and lower the presser foot.
3. Loosen the guide adjusting screw (A) to fit the tape guide (B) to the tape width, then tighten the screw.
4. Turn the handwheel manually to make two or three stitches in the tape.
5. Place the fabric to be sewn under the presser foot.
6. Sew, guiding the tape lightly.

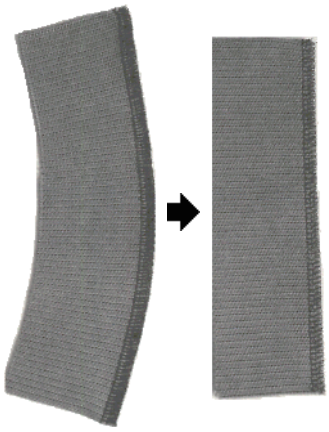
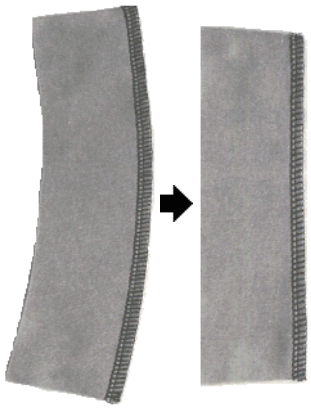
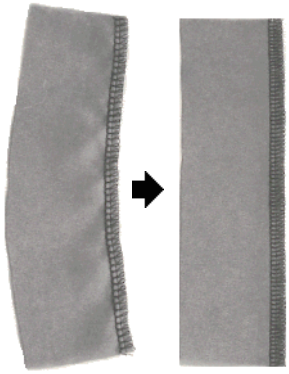
* Differential feed (MO-654DEN)





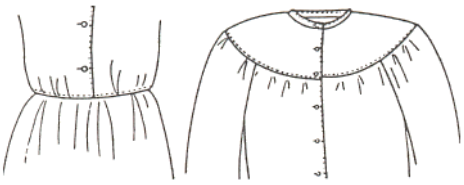
Differential feed

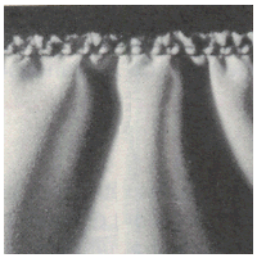
Gathering and stretching of the fabric can be adjusted by adjusting the differential feed adjusting knob (differentiate the feeding amount of front feed dog (A) or rear feed dog (B)).
After adjusted, be sure to sew on trial.

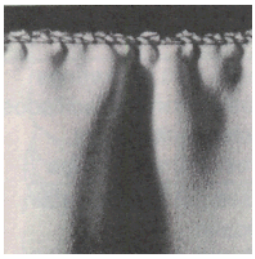
	Sewn with waves			Sewn with puckerings
Fabric	Wool knit, thick hand-knitted garments, and other stretchy fabrics	Thin knitted fabric, knitted garments, and jersey	Woven fabrics	Georgette, linen, satin, poplin
	Set value the differential feed adjusting knob			
	N → 1.5 - 2	N → 1.5	N	N → 0.7
				

www.sewshop.eu

* Gathering (MO-654DEN, 644DN)





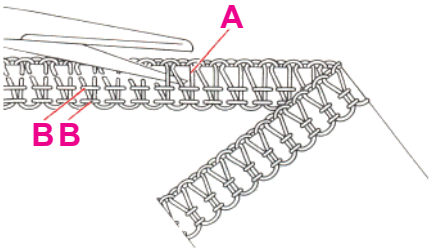


Gathering

1. A single layer of light-weight fabric can be gathered.
2. Set the stitch length adjusting knob at max. “4”.
3. Set the differential feed adjusting knob at “1.5 - 2”.

For examples: Sleeve heads, lower edges, yokes, lace edging or frills

* When sewing without differential feed, set the differential feed adjusting knob at “N”.

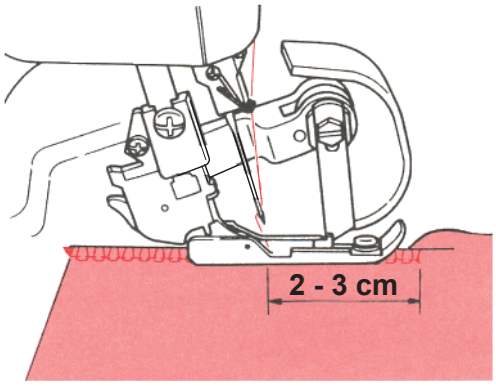


Unpicking seams

Unpicking the seams of the 4 or 3-thread overlock.
Cut the thread at (A) with scissors, and pull needle thread (B).
The stitches will come undone.

www.sewshop.eu

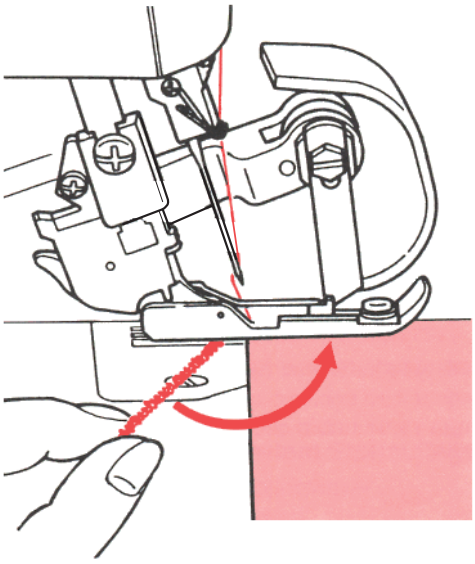
Thread breakage during sewing



Thread breakage during sewing

1. Turn the workpiece at a right angle direction and stop sewing immediately.
   The remove the workpiece.
2. Rethread
   * If the lower looper thread is broken, cut the both needle threads off at the needle.
     Then remove the threads. Thread the lower looper and then the needles.
   * If the upper looper thread is broken, remove the looper to lowest position.
     Then thread the looper thread.
     Bring the thread through under the presser foot and pull about 10 cm of the thread out behind the presser foot.
3. Raise the presser foot, and place the workpiece under the presser foot.
   Sew about 2 to 3 cm over the seam which has already been sewn before the thread breakage.

Securing seams



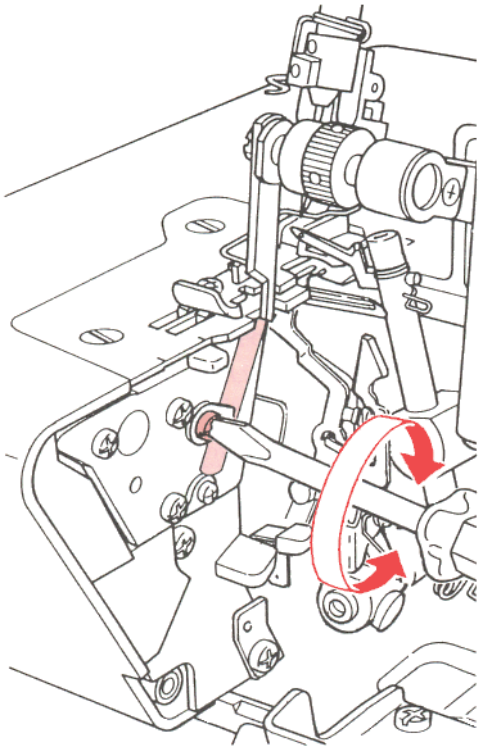
Securing seams

1. Sew about 3 to 4 cm of the thread chain at the beginning of seams.
2. Sew 2 to 3 stitches on the fabric.
3. Lower the needle and raise the presser foot.
4. Stretch the thread chain and lay it between the presser foot and the fabric from the left.
5. Lower the presser foot and sew over the thread chain.
   If you do not sew over the thread chain, be sure to leave enough thread chain at the beginning and end of a seam so that it can be knotted or pulled through the stitches with a darning needle.

* When seams cross over one another, the thread chain is automatically closed.

www.sewshop.eu

www.sewshop.eu



WARNING :

Please refer to the safety instructions.

Changing the upper knife

The upper knife (moving knife) is made from special hardened material.

Replace the upper knife only when the knife blade tip is damaged.

For a replacement, contact your local dealer.

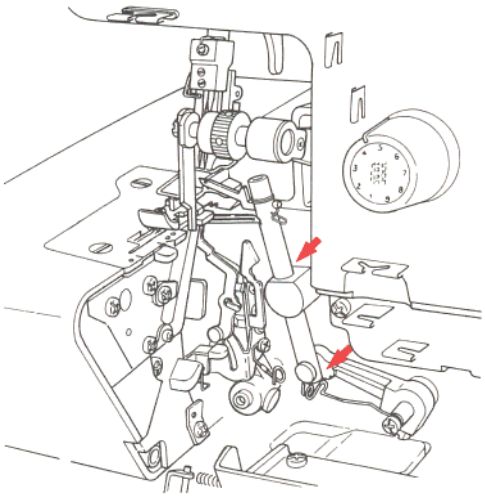
Changing the lower knife

Main switch off "O". Disconnect machine from electricity supply.

Turn handwheel towards you until needles are fully raised. Match the matching up marks on hand wheel and side cover. Raise the upper knife.

Loosen the setscrew on the lower knife retaining plate. Remove the lower knife.

Fit the replacement knife (from accessory bag) in the groove so that the sharp edge is in line with the stitch plate. Re-tighten the setscrew.



Cleaning and lubricating

Main switch off "O". Disconnect machine from electricity supply.

During sewing, dust and fluff collect in and on the machine. This should be removed regularly. Your overlock machine requires very little lubrication. Now and then, lubricate only the points illustrated.

Please refer to safety instructions.

Precautions to be taken when handling oil

* **In the event the oil gets in the eye or adheres on skin, immediately wash it off in order to prevent irritation and rash.**
* **If swallowed accidentally, immediately seek for medical advice in order to prevent diarrhea and vomiting.**
* **Keep the oil away from children.**
* **Oil disposal is obliged by legislation. Dispose of the oil properly in compliance with the relevant legislation.**

www.sewshop.eu

Before you call for help: Trouble and corrective measures

The following problems should not be regarded as the machine trouble. Check the following table before you call for help from us.

Trouble	Cause (reason)	Corrective measures	Page
Fabric does not feed	• Presser foot pressure is too low.	• Increase the presser foot pressure by turning the presser foot pressure adjusting screw to the right.	14
Needles break	• Needles are bent, or the needle point is blunt. • Needles are incorrectly attached. • The material cloth is excessively stretched.	• Replace the needles. • Attach the needle correctly. • Hold the edge of the material cloth lightly with your hand when sewing.	15 15 -
Thread breaks	• The machine is incorrectly threaded. • Thread tension is too high. • Needles are incorrectly attached.	• Rethread the machine correctly. • Adjust the thread tension properly. • Adjust the needles correctly.	16-21 24,25 15
Stitch skips	• Needles are bent or needle point is blunt. • Needles are incorrectly attached. • The machine is incorrectly threaded.	• Replace the needles. • Attach the needle correctly. • Rethread the machine correctly.	15 15 16-21
Poor stitches are formation	• Thread tension is not proper.	• Adjust the thread tension properly.	24,25
Seams flute or wave, especially when sewing knits	• Presser foot pressure is too high. • Differential feed is set incorrectly.	• Reduce presser foot pressure. • Adjust differential feed to N - 2.	14 28
Seams pucker	• Thread tension is too high. • Differential feed is set incorrectly.	• Set the thread tension adjusting dial to the smaller value. • Adjust differential feed to 0.7 - N.	24,25 28
Motor trouble	• The motor makes noise. • The motor will not rotate. • Unusually large sparks are emitted.	• Replace the carbon brush.	-

When the trouble is not corrected by the above measures, contact your local dealer.

Specifications

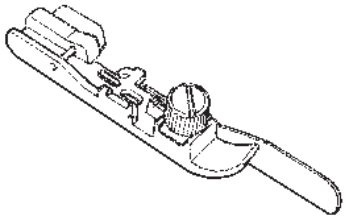
Item	Specifications
Number of threads	4 threads, 3 threads, 2 threads
Needles	Right-hand needle 130/705H Left-hand needle 130/705H (JL×2)
Overlocking width	Left-hand needle: 6 mm Right-hand needle: 4 mm (for roll hemming: 2 mm)
Stitch length (feeding amount)	1 to 4 mm (standard stitch length: 2.5 mm)
Differential feed	No waving or fluting in knits N - 2 No puckering 0.7 - N
Presser foot lift	5 mm
Sewing speed	Max. 1500 sti/min
Dimensions	270 (W) x 345 (D) x 295 (H) mm
Weight	7.0 kg
Foot control model nr.	YC-483N (220-240V)

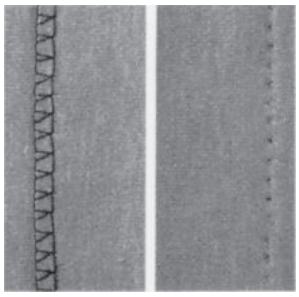
www.sewshop.eu

Optional Accessories

www.sewshop.eu

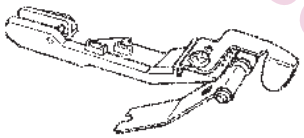
• Blind stitch presser foot

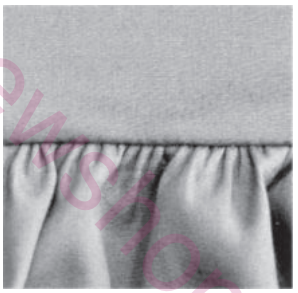




A9810 634 0A0A

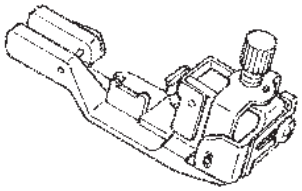
• Gathering presser foot





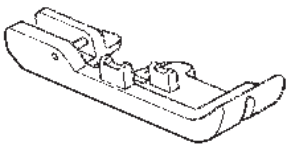
A9860 655 0A0C

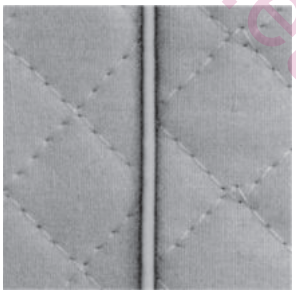
• Elasticator



A9815 655 0A0A

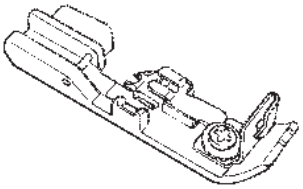
• Piping presser foot

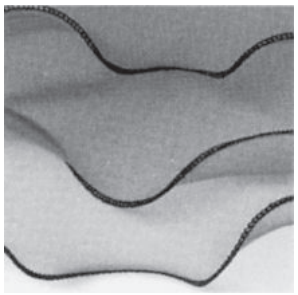




A9865 655 0A0A

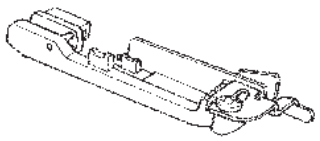
• Cording presser foot

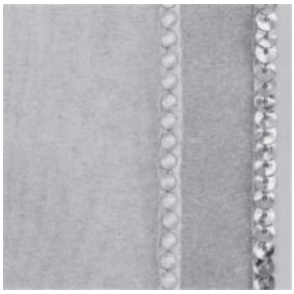




A9820 655 0A0A

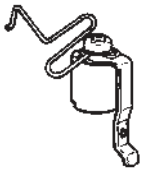
• Beading presser foot

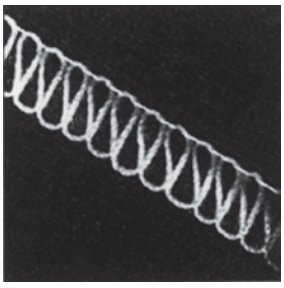




A9870 634 0A0A

• 2/3 Thread Converter





A9825 634 0A0A

Contact your local dealer.

www.sewshop.eu

JUKI CORPORATION
2-11-1, TSURUMAKI, TAMA-SHI,
TOKYO, 206-8551, JAPAN
PHONE : (81)42-357-2341
FAX : (81)42-357-2379

Copyright © 2020 JUKI CORPORATION
All rights reserved throughout the world.

40239271

002003