Parts of the 858 859

(1) Upper thread tension  
(2) Upper thread tension  
(3) Carrying handle  
(4) Thread tension/Two -thread chainstitch looper  
(5) Looper cover  
(6) Standard needle plate  
(7) Detachable work support  
(8) Accessory box  
(9) Needle holder  
(10) Sewing light cover

(11) Two -thread chainstitch looper
Important safety instructions
For the United States only

This sewing machine is designed and manufactured for HOUS-EHOLD use only. When you use an electric appliance, the following basic safety precautions should always be adhered to:
Read all instructions before using this sewing machine.

DANGER To reduce the risk of electric shock:
1. The sewing machine 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 15 Watts.
3. Do not reach for a sewing machine that has fallen into water. Unplug immediately.
4. Do not place or store a sewing machine where it can fall or be pulled into a tub or sink.
   Do not place in or drop into water or other liquid.

WARNING To reduce the risk of burns, fire, electric shock, or injury to persons:
1. Do not allow to be used as a toy. Great care is necessary when this sewing machine is used by or near children.
2. Only use this sewing machine for its intended purpose as described in this manual. Only use attachments recommended by the manufacturer as contained in this manual.
3. Never operate this sewing machine if it has a damaged cord or plug, if it is not working properly, if it has been dropped or damaged, or dropped into water. Return the appliance to the nearest authorized dealer or service center for examination, repair, electrical or mechanical adjustment.
4. Never operate the sewing machine with any air openings blocked. Keep ventilation openings of the sewing machine and foot control free from the accumulation of lint, dust and loose cloth.
5. Never drop or insert anything into any opening.
6. Do not use out of doors.
7. Do not operate where aerosol (spray) products are being used or where oxygen is being administered.
8. To disconnect, turn all controls to off ("0") position, then remove plug from socket.
9. Never operate on a soft surface such as a bed or couch where the air openings may be blocked.
10. Do not unplug by pulling on cord. To unplug, hold the plug, not the cord.
11. Keep fingers away from all moving parts. Special care is required around the sewing machine needle.
12. Always use the proper needle plate. The wrong plate can cause the needle to break.
13. Do not use bent or blunt needles. Only use needles recommended by the manufacturer.
14. Do not pull or push fabric while stitching. It may deflect the needle, causing it to break.
15. 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, etc.
16. Always unplug sewing machine from the electric outlet when removing covers, lubricating, or when making any other user servicing adjustments mentioned in the instruction manual.
17. Hold plug when rewinding into cord reel. Do not allow plug to whip when rewinding.
Please also observe the general safety notes on Page2.

KEEP THESE INSTRUCTIONS IN A SAFE PLACE
Notes on safety

1. The user must exercise adequate caution with regard to the up and down movement of the needle and keep the sewing area under constant observation while working.

2. When leaving the machine, during maintenance work or when changing mechanical parts or accessories, always disconnect the machine from the electric power by pulling out the plug.

3. The maximum permissible wattage for the sewing lamp is 15 Watts.

4. The tension of the drive belt should only be adjusted by a mechanic.

5. The machine should be put into operation as indicated on the specification plate.

6. Do not place any objects in openings on the machine.

7. **Do not use** the sewing machine if:
   - there is visible damage,
   - its function is defective,
   - it is wet, e.g. with condensation which can occur when a cold machine is brought into a warm room.

8. **Do not** pull the mains plug out of the socket by its cord.

9. If this appliance is used for another purpose than that intended or if it is wrongly operated, we **cannot** accept any liability for any damage caused.

10. To avoid the risk of electric shock, do not open the machine. There are no parts inside the machine which the user can repair. **This is the exclusive responsibility of our qualified service staff.**

11. **Be sure to use only original parts.**

12. The machine is designated for an electrical supply with a nominal voltage of +/- 10% and a rated frequency of +/- 4%.

13. When used properly, the temperature of the outer components of a non-electronically controlled foot control can reach up to 85°C. Constant use at a low speed is therefore not permitted in order to avoid damage.

**Environment**

The recommended environment is:
- Ambient temperature 10°C to 40°C
- Humidity 20% to 80%
- Storage temperature -25°C to +60°C

The machine is suppressed and immune to interference according to international regulations; however it should not be operated near electronic devices such as radios, TVs, PCs, broadcasting transmitters etc.

This sewing machine is a high-quality electro-mechanical appliance; it is a machine for supervised use in the home. It should be operated in such a way that it is not exposed to: dust, severe dampness, direct sunlight, static electricity, heat-producing objects, corrosive chemicals or liquids.

To permit adequate ventilation the machine must be kept unblocked and used on a firm and even surface.

**Treatment**

Always make sure not to damage your machine by **knocking or dropping it**.

**Cleaning**

**Housing and display:**
To clean the housing, use a dry, clean and soft cloth that is free of fluff. To remove any stubborn dirt, use a soft cloth with alcohol or paraffin.

**please Note!**
Never use **insecticides or chemical products** such as petrol (gas) or thin chemicals to clean the housing.
Simple, up-to-date sewing

Congratulations! You have bought a high-quality product that provides unique advantages. Your new 858 859 can take any material in its stride and will sew for you through thick and thin.

Your coverlock features the very latest in design and technology, and it is just as easy to use as this instruction manual is to follow.

If you now take a bit of time to study the instruction manual nothing can go amiss.

It is certainly time well spent, since it is the only way to find out just what your machine can do and put it to full use.

If you have any further questions, just ask your dealer. They are happy to be of service with any help or advice.

So now let's get started! We wish you many enjoyable hours creating your very own fashion ideas.
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<td>Two–thread chainstitch looper (violet), threading</td>
<td>16, 17</td>
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</table>
Accessory box

pull the accessory box (13) to the left and remove the accessories.

Accessories

The following accessories are included with the machine:

1. Machine oil
2. Thread unreeling discs (858 3 each 859 4 each)
3. Edge guide
4. Cleaning brush
5. Pair of tweezers
6. Screwdriver (small)
7. Screwdriver (large)
8. Overlock needle system EL705
   cat. No. 2020

Machine Cover

The machine cover protects the machine against dust and dirt. After each use push in telescopic thread guide (26). Thread spool stand (28) must be pushed against the machine, with or without thread spools, as far as it will go. The machine cover can now be placed in position.
OPERATING INSTRUCTIONS

Connecting the foot control
Plug the foot control plug into the connecting bush (31) of the machine and the plug socket. The sewing speed is regulated by activating the foot control. You may also regulate the sewing speed by adjusting the slide on the front of the foot control.

Setting ▶ = reduced final speed
Setting ◄◄ = full final speed

Master switch
When you turn on the master switch (32) the sewing lamp is illuminated. The machine is now operational.

* O * = OFF
* 1" = ON

Notes on safety
This appliance has a polarized plug (one blade wider than the other). To reduce 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.

USA and Canada: For control sewing machine, foot controller type AE 033 has to be used.
Australia: For control sewing machine, foot controller type AE 034 has to be used.
Trimming waste container
Insert the upper latches of the trimming waste container (38) into the upper slot of the hook cover (8).

Apply pressure to the lower part of the container until the lower latches click into place in the lower slots of the looper cover.

To remove the trimming waste container, repeat this procedure in the reverse order.

Looper cover
Push the looper cover (8) fully to the right and then swivel it down. Each threading path and the mounting procedure for the converter are portrayed in color on the inside of the machine. The threading method for the lower overedge looper (17) and the most common stitch types are shown symbolically on the inside of the looper cover.

Note
The electricity supply of the machine is cut off as soon as the looper cover is opened for safety reasons, i.e. sewing with the machine is no longer possible.
**Spool holder**
Before mounting spools you must pull the spool holder (28) back fully.

**Telescopic thread guide**
Pull the telescopic thread guide (26) upwards.
To ensure optimum thread feed, turn the telescopic parts slowly until you hear the locking balls then click into place.

**Spool centering piece**
Use the spool centering piece (30) when sewing with large spools (5,000 – 10,000 m), as shown in the illustration above.
Thread unreeling disc

The thread unreeling disc (in the accessory box) is used for small spools. Place the unreeling disc onto the spool.

Place the two onto the spool centering piece (30) of the thread spool pin (29).

Retaining screw C belongs to the 2-thread chainstitch needle and retaining screw D belongs to the cover-stitch needle.
Note: If both the 2-thread chainstitch needle and the cover-stitch needle are threaded, the left needle will be somewhat higher than the right needle.
Threading/Thread guides

Place the spools on the spool stands (29). Notes on the spool net, thread unreeling disc and spool centering piece are to be found on pages 9 and 10. Insert the threads through the thread guides (24) from back to front according to the color coding.

Lift carrying handle (3). Insert the threads beneath the handle and through rear thread guides (37) by pulling down with both hands until the thread slips under the thread guide. Pull the thread between the tension discs and press it down until it is lodged between the tension discs. Return the carrying handle to its closed position.
Threading

2-thread chainstitch looper (violet)

Turn the handwheel in the direction of the arrow until the 2-thread chainstitch looper (18) is positioned at the extreme right.

Insert the thread by following steps 1 to 11.

Note: To facilitate threading, use the tweezers included in the accessory box.

Insert the thread along the path marked in violet through thread guides 4 to 10.

Insert the thread from the front through the eye 11 of 2-thread chainstitch looper.

Pull about four inches (10 cm) of thread through the looper and lay it to the left underneath the presser foot.
Exception:

Threading the 2–thread chainstitch looper for cover stitch (violet and pink)

Turn the handwheel in the direction of the arrow until the 2–thread chainstitch looper (18) is positioned at the extreme right.

Insert the thread by following steps 1 to 12.

Note: To facilitate threading, use the tweezers included in the accessory box.

Insert the thread along the path marked in pink through thread guides 4 to 12.

Pull about four inches (10 cm) of thread through the looper and lay it to the left underneath the presser foot.

The thread guide 8 may only be used, when sewing the cover stitch.
Threading

Right and left overlock needle,

Needle A and B (green and blue)

Insert the thread by following steps 1 to 10.

Note: To facilitate threading, use the tweezers included in the accessory box.

Note: The thread must run below the thread guide 7 and above the thread guide 8.

Pull about four inches (10 cm) of thread through the eye of the needle and lay it to the left underneath the presser foot.
Threading

2-thread chainstitch needle and coverstitch needle

Needles C and D (blue and green)

Insert the thread following steps 1 to 8.

Note: To facilitate threading, use the tweezers included in the accessory box.

Note: The thread must run above thread guides 5 and 6.

To sew the cover stitch, thread, as shown in illustration A, into thread guide 8. To sew the 2-thread chainstitch, the 5-thread safety-stitch seam and the 4-thread safety stitch seam, thread into thread guides 7 and 8, as shown in illustration B. Pull about four inches (10 cm) of thread through the eye of the needle and lay it to the left underneath the presser foot.
Changing a spool on a threaded machine

Cut the threads off close to the spool and mount new spools. Tie together the threads, that are still in the machine with the new threads, and pull the threads out of the needles. Raise the presser foot. Pull on the needle threads until the knots are about 6 inches (15 cm) past the last thread guide in front of the needles. Cut the knots off and pull the threads through the respective needle eyes. The looper threads can be pulled continuously past the looper eye and placed to the left underneath the presser foot.
Presser foot lifter

The presser foot can be raised and lowered with presser foot lifter (36). The maximum vertical clearance of 1/4 inch (6.0 mm) for the presser foot for particularly thick fabrics can be achieved by also depressing the presser foot lifter towards the back.

Once a thread chain has been created, the presser foot lifter no longer needs to be raised if you continue working with the same thread and presser foot. It is sufficient to gently lift the presser foot using your thumb. Now slide the fabric under the raised part of the presser foot. The fabric is automatically taken up and fed into the machine when you activate the foot control.

Presser foot pressure

The pre-set presser foot pressure on the machine is suitable for medium-heavy materials.

The presser foot pressure does not need to be changed for most materials. If you are working with lighter or heavy materials then you may however need to reset the pressure.

In this event, insert the small screwdriver from the accessory box into regulator screw for the presser foot pressure (25). The pressure is adjusted by turning the screw to the left or right. For heavyweight fabrics: increase pressure by turning the regulator screw to the right.

Note: Turn the regulator screw to the right until it strikes against the top lid. Then turn the screw back to the left, rotating it 6 times. Now the standard presser foot pressure is set.
Setting the stitch length

The stitch length can be set as desired from F (1 1 mm) to 4 mm by turning stitch length adjustment knob (35).

For most sewing work, the stitch length adjustment knob should be set at 3mm. When working with close-knit fabrics set the adjustment knob to 4 mm.

Sewing with the free arm

Detach the work support

Pull the detachable work support (12) forward slightly, and remove this to the left.

Note: If you detach the trimming waste container beforehand, it is easier to remove the detachable work support.
Differential Feed adjustment level:
Regulating the rate of feed freely according to the

The following table contains information on the differential feed settings. However, you should always test your setting first on a piece of scrap fabric.

<table>
<thead>
<tr>
<th>Type of fabric/effect</th>
<th>Differential-feed setting</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>gather</td>
</tr>
<tr>
<td>Very light fabrics: silk, satin, poplin, taffeta, linings.</td>
<td>0</td>
</tr>
<tr>
<td>Normal fabrics: light and medium-heavy cottons, fine cords, thermal-wear.</td>
<td>0</td>
</tr>
<tr>
<td>Light knitwear: jerseys, polo fabrics, cut-pile pullovers, tricot, fine knitwear and gathered materials.</td>
<td>0</td>
</tr>
<tr>
<td>Heavy knitwear: sweatshirt fleece, heavy gathered materials, heavy knitwear.</td>
<td>0</td>
</tr>
<tr>
<td>Stretch – wavelike effect: medium and light knitwear, ruffled sleeve and collar edges, skirt hems, dense stitch lengths.</td>
<td>0</td>
</tr>
<tr>
<td>Gathering: ruffling light materials and lace, seam allowances for curves, arches on blouses, shirts, skirts, round pockets, flaps, stretching or gentle ruffling of arched sleeves (shoulders), sleeve widths for cuffs or gathered fabrics.</td>
<td>0</td>
</tr>
</tbody>
</table>
To start sewing:

Raise the presser foot and place the fabric under the presser foot so the needles pierce the fabric for the first stitch. Place the fabric onto the power table according to the width of the seam. When starting to sew, pull the fabric taut towards the rear and sew slowly, because the machine, when you start to sew, feeds the fabric slowly.

Finishing sewing

1. When sewing to the edge of the fabric:

Hold the threads at the end of the seam tightly and sew slowly off the fabric during which the thread should be pulled lightly towards the rear.

Note: In most cases the differential feed has to be adjusted. Sew a trial seam first.
2. If you are not to sew to the edge of the fabric, i.e. by tubular fabrics:

Sew 4–5 stitches on top of each other. During the last stitch, turn the handwheel to wards you until the needles pierce the fabric and you have heard each needle "click" (just before the needles are in the lowest position).

After the second "click" turn the handwheel back, until the needles are in the highest position. Raise the presser foot. Cut the threads. Pull the needle threads to the back and knot them. Hold the threads at the end of the fabric tightly and remove the fabric.

**Edge guide**

Push the edge guide, from the accessory box, into the guide holder A. The edge guide can be set as required by moving it to the left or right.

The edge guide is useful for serging seams at regular intervals with the cover stitch or two-thread chainstitch.
<table>
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<th>Application</th>
<th>Needle position</th>
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</thead>
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<td>Sewing hems and ornamental stitches</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[Image of cover-stitch seam]</td>
<td>[Diagram of needle position]</td>
</tr>
<tr>
<td>2-thread chainstitch seam</td>
<td>Joining pieces of tightly woven fabrics for upholstery covers and denim, without serging</td>
<td>[Diagram of needle position]</td>
</tr>
<tr>
<td></td>
<td>blue</td>
<td>green</td>
</tr>
<tr>
<td>------</td>
<td>------</td>
<td>-------</td>
</tr>
<tr>
<td>-1.5</td>
<td>-1.5</td>
<td>-1.5</td>
</tr>
<tr>
<td>-1.5</td>
<td>-1.5</td>
<td>-1.5</td>
</tr>
<tr>
<td>-1.5</td>
<td></td>
<td>+3</td>
</tr>
</tbody>
</table>
Adjusting the thread tension

The following pages contain directions for setting thread tensions for all programs. Adjust the tension by turning the tensioning wheel until the dot marker is at the desired setting.

The settings for adjusting thread tension are recommendations. Fabric type, yarn quality and needle gauge will influence seam results. For this reason it is always best to sew a test seam to check the interlocking of threads. It may be necessary to correct the thread tension settings.

Note: All further settings required for individual programs are to be found in the program summary on pages 36 to 41.

---

**Cover Stitch**

<table>
<thead>
<tr>
<th></th>
<th>blue</th>
<th>green</th>
<th>pink</th>
<th>yellow</th>
<th>violet</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1.5</td>
<td>1.5</td>
<td></td>
<td></td>
<td>1.5</td>
</tr>
</tbody>
</table>

If all tensions are optimally set, the needle threads (green and blue) are just slightly visible on the underside of the fabric. The looper thread (yellow) is situated loosely in between.

---

The right needle thread (green) is too loose. Set the green thread tension to a higher value.
The needle threads (green and blue) are too tight and the material puckers.
Set the green and blue thread tension to a lower value.

Two-Thread Chainstitch

<table>
<thead>
<tr>
<th></th>
<th>blue</th>
<th>green</th>
<th>pink</th>
<th>yellow</th>
<th>violet</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-1.5</td>
<td></td>
<td></td>
<td></td>
<td>+3</td>
</tr>
</tbody>
</table>

When all tension units are correctly set, the needle thread blue is just slightly visible on the lower edge of the fabric.

The needle thread (blue) is too loose.
Set the blue thread tension to a higher value.
Machine maintenance

Cleaning the machine

Switch off electrical power

Remove the trimming waste box and open the looper cover. Disengage the upper blade and remove the presser foot and the needle plate.

Use the accessory brush provided to remove any waste thread from the upper and lower blades, the differential feed and looper area.

Cleaning the rubber feet

Clean the rubber feet from time to time with alcohol. This ensures good stability.
Changing the light bulb (sewing light)

Switch off the electrical power

Use the large screwdriver from the accessories to loosen the retaining screw of sewing light cover (15) until it can be removed.

Push the light bulb fully into its socket. Rotate anti-clockwise through half a turn and remove.

Guide the new light bulb (max. 15 W) into the socket and twist until both pins on the bulb slide into the grooves.

Press the bulb right into the socket, twisting it clockwise until it is securely fixed.

Mount the sewing light cover and tighten the retaining screw.
Special accessories

On the following pages you will find descriptions of all sewing feet available as special accessories to help you to get the best from your 858 859. By using these presser feet, you can perform various steps in one, thus saving time and ensuring perfect serging results.
Specifications:

Maximum sewing speed
1200 stitches/min.

Seam width
4 mm

Stitch length
2 mm-4 mm (Cover-stitch seam 3-4 mm, 2-thread chainstitch seam 2-4 mm)

Presser foot height
4 mm (858), 6 mm (859)

Needle system
ELX705, cat. no. 2020

Needle size
80/11, 90/14

Number of threads
2, 3, 4

Dimensions (width x height x depth)
300 x 285 x 275

Weight
7 kg

Packing contents

1 machine
1 foot control
1 instruction manual/guarantee card
1 trimming waste box
1 machine cover
Parts of the 858 859

(12) Thread guides with color coding
(13) Regulator screw for presser foot pressure
(14) Telescopic thread guide
(15) Thread chain cutter
(16) Thread spool stand
(17) Thread spool pins
(18) Thread spool centering pieces
(19) Machine socket, foot control with power cord
(20) Electrical power master switch
(21) Handwheel
(22) Regulator lever for differential feed
(23) Stitch length adjustment knob
(24) Presser foot lifter
(25) Rear thread guides

(26) Trimming waste box
(27) Foot control
(28) Foot control plug for machine
(29) Power plug