

# Beldray<sup>Est 1872</sup>

Nobody Does It Better

## 12 Stitch Sewing Machine Instruction Manual



THE **SCIENCE**  
BEHIND CLEAN

## Getting Started

Remove the appliance from the box.

Remove any packaging from the product.

Place the packaging inside the box and either store or dispose of safely.

Note: the sewing machine is supplied threaded. If you wish to change the thread please follow the threading guides in this Instruction Manual.

Remove the swatch of material by cutting the thread.

## In the Box

Sewing Machine

Power Supply

Foot Pedal

Pack of Accessories

200 Piece Sewing Kit

Instruction Manual

## Features

12 stitch patterns

High and low speed switch

Reverse lever

Presser foot lever

Sewing light

Balance wheel

Runs on a DC adaptor

## Safety Instructions

When using electrical appliances, basic safety precautions should always be followed.

Ensure the appliance is not too close to any heat emitting appliances or placed in direct sunlight.

Ensure the DC power supply is not connected whilst threading the upper thread, winding and fitting the lower bobbin, replacing the needle or making any other adjustments.

Ensure the Auto Low – Auto High switch is in the centre Off position when the appliance is not in use.

Position the appliance on a solid, level surface at a height which is comfortable for the user.

Check that the voltage indicated on the data plate corresponds with that of the local network before connecting the appliance to the mains power supply.

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities or lack of experience or knowledge. They should be given supervision and instruction in the use of the appliance by a person responsible for their safety.

Do not immerse the appliance in water or any other liquids.

It is imperative to unplug the power cord after the appliance has been used, before it is cleaned and whilst being repaired.

Close supervision is required when using this appliance near children.

Do not leave the appliance within reach of children.

Repairs to electrical appliances should only be performed by a qualified electrician. Improper repairs may place the user at serious risk.

This product is not a toy.

This appliance is intended for household use only and should not be used for industrial purposes.

Do not operate this appliance with a damaged plug or cord, after a malfunction or after being dropped or damaged in any way.

Do not use this appliance for anything other than its intended use.

Do not use this appliance outdoors or on wet surfaces.

Do not use this appliance with wet hands.

Do not use this appliance if the needle or presser foot is tangled or jammed.

Keep fingers clear of the needle when sewing.

Keep free of dust, lint, hair or anything that may reduce performance.

Do not remove the mains adaptor by pulling the cord; remove the adaptor from the socket by hand.

Always watch the needle carefully during sewing; do not touch the hand wheel, thread take-up lever, needle or other moving parts.

Do not store anything on the foot controller.

Do not store the appliance in direct sunlight or in high humidity conditions. Do not use or store the machine near a heater, iron, halogen lamp or any other hot objects.

Always consult this manual before replacing or fitting the presser foot, the needle or any other part to ensure you fit them correctly.

To repair or adjust the appliance:

If the appliance breaks down or needs adjustment, first follow the troubleshooting table to inspect and adjust the machine yourself. If the problem is still there, consult your local authorized dealer.

## Description of Parts

1. Stitch Pattern Selector Dial – you can turn this in either direction to choose the stitch you want.

2. Reverse Sewing Lever – you can push this to stitch in the reverse direction.

3. Auto Low – Foot Pedal – Auto High Stitch

4. Upper Tension Control Dial – this controls the tension of the upper thread.

5. Balance Wheel – used to manually raise and lower the needle.

6. Spool Pin – this holds the spool of thread.

7. Spool Retainer

8. Rear Thread Guide

9. Front Thread Guide – this is used when winding the thread onto the bobbin and then threading the machine.

10. Take Up Lever

11. Needle Thread Guide

12. Needle Retaining Screw

13. Bobbin Winder – this winds the thread onto the bobbin for use as the lower thread.

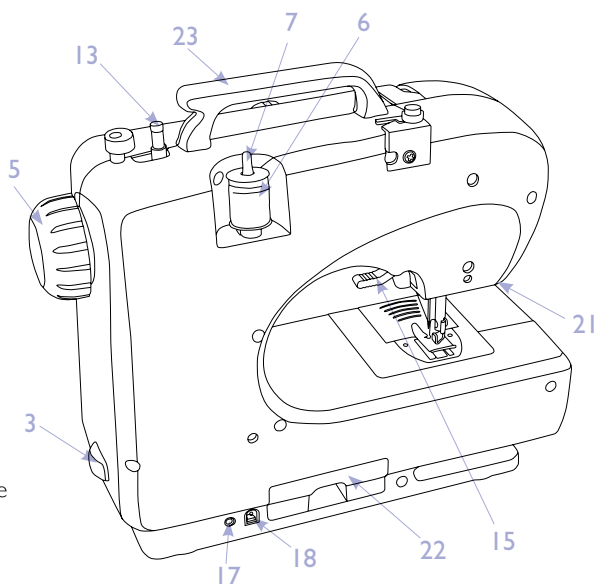
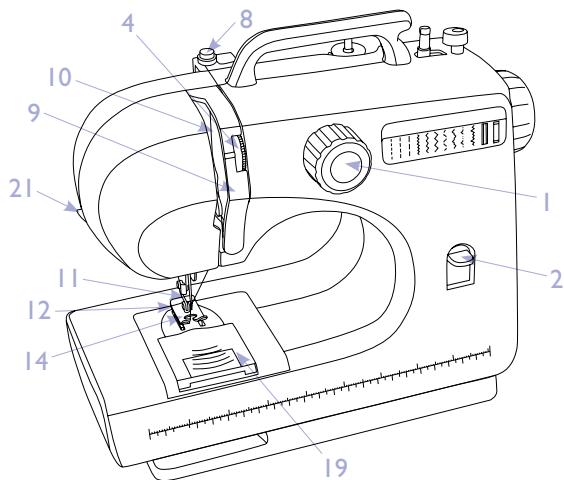
14. Presser Foot

15. Presser Foots Raise/Lower

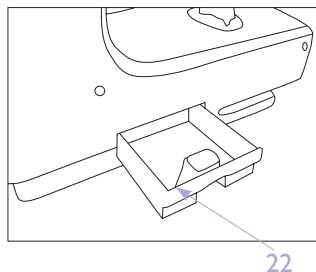
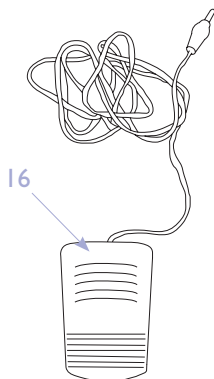
Lever – used to raise and lower the presser foot.

16. Foot Controller - you can use this to control the sewing speed and to start and stop sewing.

17. Foot Controller Jack/Socket – plug in the foot controller plug and connect the machine to the power supply.

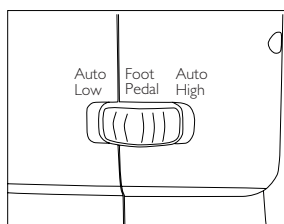


- 18. DC Power Jack
- 19. Lower Bobbin Compartment (containing lower bobbin).
- 20. Sewing light Switch
- 21. Thread Cutter – pass the threads through the thread cutter to cut them.
- 22. Accessory Compartment
- 23. Handle



## Main Power and Sewing Light Switch

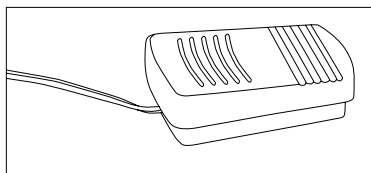
This switch turns the main power on or sets the machine to Auto-Low or Auto-High.



## Foot Controller

When you press the foot controller down lightly, the machine will run at a low speed. When you press harder, the machine's speed will increase. When you take your foot off the foot controller, the machine will stop. You should make sure that nothing is placed on the foot controller when the machine is not in use.

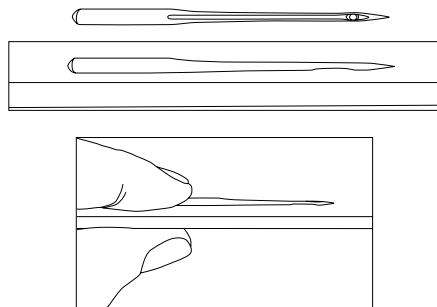
Caution: do not allow pieces of cloth and dust to build up on the foot controller as this could cause a fire or electric shock.



## Checking the Needle

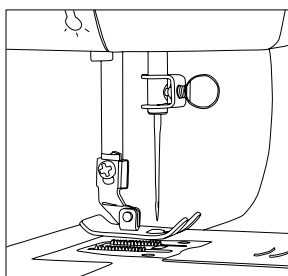
The sewing needle must always be straight and sharp for smooth sewing:

1. Put the flat side of the needle on a flat surface.
2. Check the needle from the top and the sides.
3. Dispose of any bent needles.

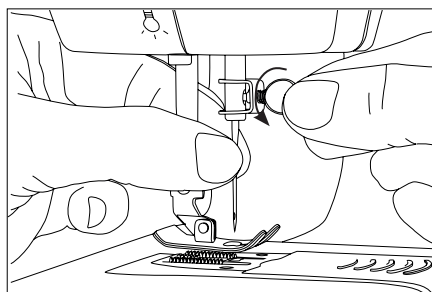


## Replacing the Needle

1. Remove the power supply plug from the outlet.
2. Raise the needle to its highest position by turning the hand wheel toward you (anticlockwise) so that the mark on the hand wheel points directly up.

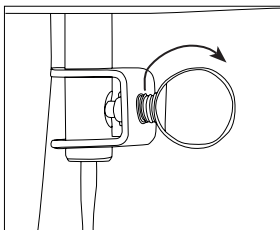


3. Lower the presser foot lever.
4. Hold the needle with your left hand, turn the needle clamp screw anticlockwise to remove the needle.

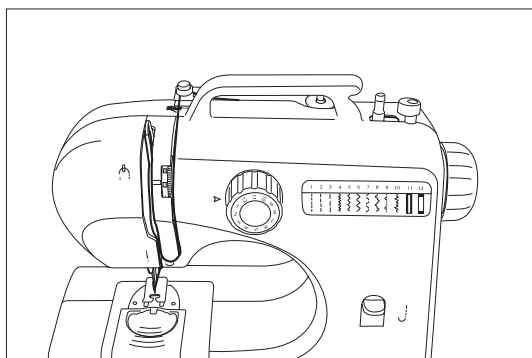


Do not use excessive force when loosening or tightening the needle clamp screw, otherwise certain parts of the sewing machine may be damaged.

5. With the flat side of the needle toward the back of the machine, insert the needle until it touches the needle stopper.  
Next, tighten the needle clamp.

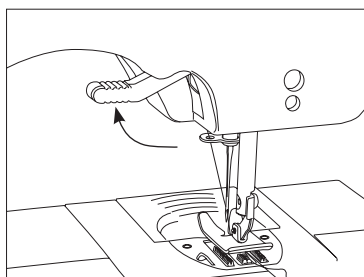


### Threading the Upper Thread



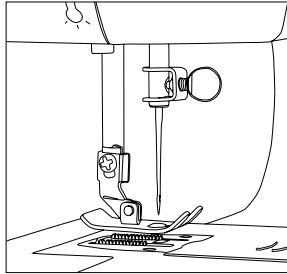
Ensure the machine is not connected to the DC power supply and that the Auto Low – Foot Pedal – Auto High switch (3) is in the centre Foot Pedal position.

1. Raise the presser foot (14) using the presser foot raise/lower lever (15).

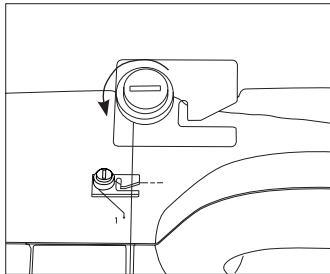




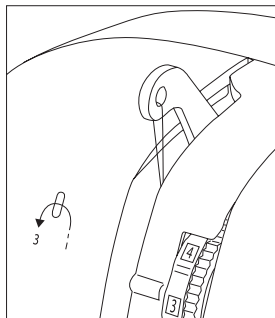
2. Raise the needle to its highest position using the balance wheel (5)



3. Remove the spool retainer (7) by carefully pulling upwards off the spool pin (6).  
4. Place a cotton reel of the desired colour onto the spool pin (6) ensuring the free end of cotton is to the rear. Replace the spool retainer.  
5. Run the thread behind the rear guide (8) and then forward towards the front guide (9) to the right of the upper tension control dial (4).



6. Move the thread downwards then loop it back up (following the arrow on the machine) towards the take up lever (10).  
7. Feed the thread through the hole in the take up lever from right to left.



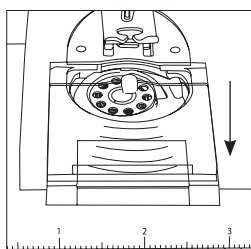
8. Feed the thread through the eye of the needle from front to back. To aid threading the needle, use the threading tool (supplied in the accessory pack) by pushing the wire part through the eye of the needle from the rear so that it forms a loop. Feed the thread through the wire loop then draw the tool back through the eye to thread the needle.
9. Ensure there is at least 5cm of excess thread and drape it down through the toes of the presser foot (14) and then draw towards the rear of the machine

### Unthreading Upper Thread

1. Ensure the thread is not attached to any material, cut with scissors or the thread cutter.
2. Follow steps 1 to 3 above for Threading the Upper Thread.
3. Remove the thread by following steps 8, 7, 6 and 5 in the reverse order.
4. Remove the spool retainer and lift off the cotton reel, making sure to wind up the excess cotton.

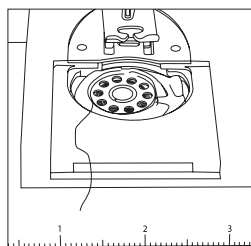
### Threading the Lower Thread

1. Open the lower bobbin compartment (19) by sliding it back. Place a metal bobbin (containing thread of the same colour) into the compartment (19). With the thread unwinding clockwise, draw out enough thread so there is approximately 10cm free.

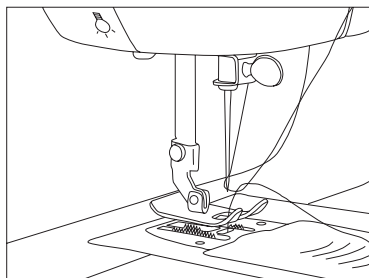


**IMPORTANT-** to ensure the machine functions correctly, plastic bobbins must not be used in the lower compartment.

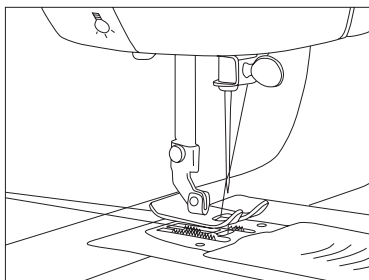
2. Leave approximately 10cm of the upper thread free. Lower the presser foot (14).



3. Turn the balance wheel (5) anti clockwise (towards you) and the needle will go down and pick up the lower thread. Continue turning the wheel until the needle has gone down completely and then comes back up again to its highest point. Stop turning the wheel when it has returned down.



4. Raise the presser foot and bring the spool thread round to the front. Pull it up gently and you will see that it has caught the bobbin thread. Pull the two threads under the presser foot and towards the back.

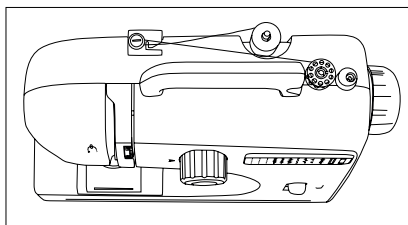


5. Replace the lower bobbin by sliding it forwards into place.

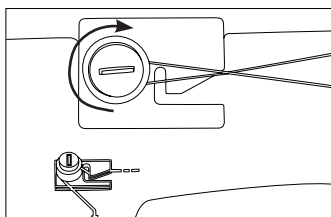
## Unthreading the Lower Thread

1. Open the lower bobbin compartment (19) by sliding it back.
2. Lift out the bobbin and pull the thread clear, make sure to wind up the excess cotton onto the reel.

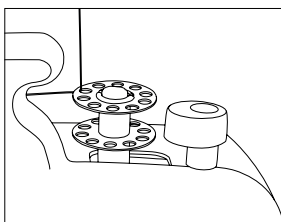
## Threading the Bobbin



1. Put the spool of thread on the spool pin and pass the thread around the pre-tension disk.



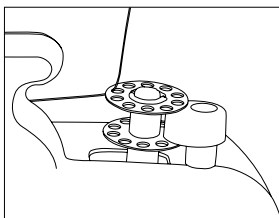
2. Wrap the cotton around the bobbin a few times and thread through the hole at the top.



### Caution

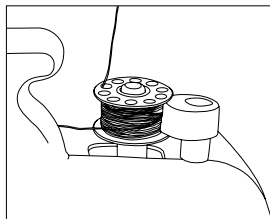
If the spool of thread is not in the right place, the thread may tangle on the spool pin.

3. Put the bobbin onto the bobbin winder shaft and slide the bobbin winder shaft to the right.



Note: make sure that the thread between the spool and the bobbin is pulled tight.

4. While holding the end of the thread, gently press the foot controller to wind the thread around the bobbin a few times. Then stop the machine.
5. Trim the excess thread.
6. Press the foot controller to start.
7. When the bobbin seems full and begins spinning slowly, take your foot off the foot controller.



8. Cut the thread, slide the bobbin winder shaft to the left and remove the bobbin.

Note: the needle bar does not move when you slide the bobbin winder shaft to the right.

Caution: Make sure you follow the instructions carefully. If you do not cut the excess thread completely before winding the bobbin, when the thread runs low it may tangle around the bobbin and cause the needle to break.

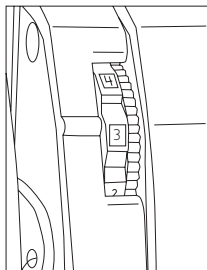
Caution: Not winding the bobbin properly may cause the thread tension to loosen, and may break the needle.

Caution: make sure you set the bobbin so the thread unrolls in the right direction. If the thread unrolls in the wrong direction, it may cause the thread tension to be incorrect or break the needle.

## Thread Tension

The tension of the thread will affect the quality of your stitches. You may need to adjust it when you change fabric or thread.

Note: it is recommended that you do a test sample on a scrap of fabric before you start to sew.



## Correct Tension

Correct tension is important as too much or too little tension will weaken your seams or cause puckers on your fabric.

## Upper Tension is too Tight

Loops will appear on the surface of the fabric.

Solution: reduce the tension by turning the upper tension dial to a lower number.

## Upper Tension is too Loose

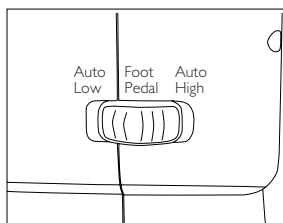
Loops appear on the back of the fabric.

Solution: increase the tension by turning the upper tension control dial to a higher number.

Note: if the upper thread is not threaded correctly or the bobbin is not installed correctly, it may not be possible to set the correct thread tension. If the correct thread tension cannot be achieved, rethread the upper thread and insert the bobbin correctly.

## Sewing

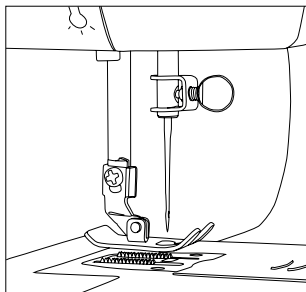
1. In order to operate the appliance on mains, ensure the Auto Low – Foot Pedal – Auto High switch (3) is in the Foot Pedal position.



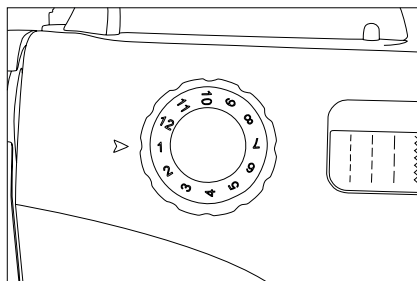
2. Plug the mains adaptor into the DC power jack (18) on the rear of the appliance. Plug the DC adaptor into the nearest mains socket and switch on if applicable.

3. If required, the foot controller (16) should be placed on the floor in the desired position, the wire unravelled and plugged into the foot controller jack (17) on the rear of the appliance next to the DC input jack.

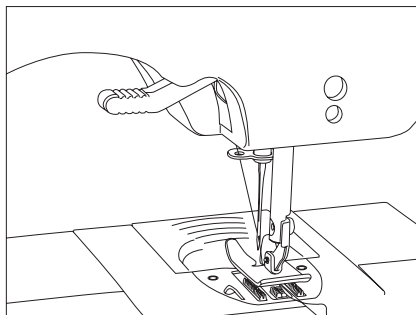
4. Raise the needle to its highest position using the balance wheel (5).



5. Rotate the pattern selector dial (1) to the desired stitch pattern.

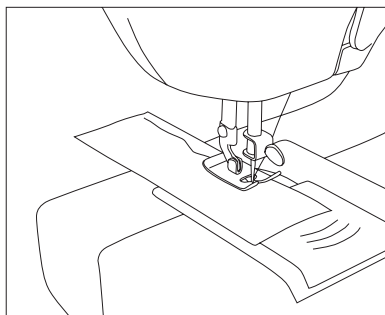


6. Raise the presser foot (14) if down, using the presser foot raise / lower lever (15).



7. Draw the thread through the 'toes' of the presser foot (14) guiding them towards the rear of the appliance.
8. Place the fabric under the presser foot.

9. Lower the presser foot (14) using the presser foot raise / lower lever (15).



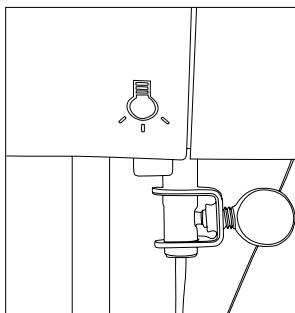
10. Start the machine by switching the Auto Low – Foot Pedal – Auto High switch (3) to Auto Low or Auto High speed position or...

11. If using the foot controller pedal (16) to switch to Foot Pedal position, press the pedal with your foot to start the machine and during running then release the foot pressure to stop the machine.

12. During sewing, guide the garment steadily through the machine ensuring it is held flat without creasing, snagging or folding.

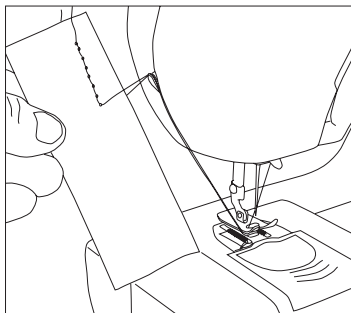
13. Do not force the garment through the machine.

14. Press the sewing light switch (20) during sewing if more light is required.





15. After sewing has been completed, cut the thread(s) off using the cutter (21) mounted on the left hand side of the machine by looping over the cutter and pulling down.



## Reverse Sewing

Reverse sewing can be used for back tacking and reinforcing seams.

To sew in reverse, push the reverse sewing lever (2) down and hold it in position while you press the foot controller (16). To sew forwards, release the reverse sewing lever.

## Accessory Compartment

Use the accessory compartment (24) mounted at the side of the appliance to store bobbins, spare needles or the needle threading tool.

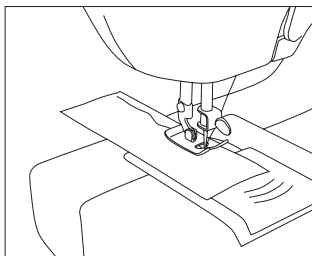
## Straight Stitching

Stitch Name	Pattern
Straight stitch	1 2 3

## Starting Sewing

1. Turn the pattern selection dial to choose the stitch number you want. You also need to set the pattern selection dial to the Straight Stitch or Triple Stretch Stitch.
2. Raise the needle to its highest position and lift the presser foot lever.
3. Pull the upper thread through the toes of the presser foot.
4. Put the fabric under the presser foot and position the needle 1 cm (3/8 inch) from the edge of the fabric.
5. Lower the presser foot.

6. To back tack, push down the reverse sewing lever as far as possible and then press the foot controller to start reverse sewing. Release the foot controller to stop sewing.
7. Release the reverse sewing lever and start sewing in the forward direction by pressing the foot controller.



You can use reverse sewing for locking the end of seams and to strengthen a stitch.

Caution: make sure the needle does not hit a pin or any other object during sewing. The thread could tangle or the needle could break and you may be injured.

### Changing Sewing Direction

1. Stop the machine at the point where you want to change direction with the needle still in the fabric.
2. Raise the presser foot and turn the fabric to its new direction using the needle as a pivot.
3. Lower the presser foot and start sewing in the new direction.

### Finishing Sewing

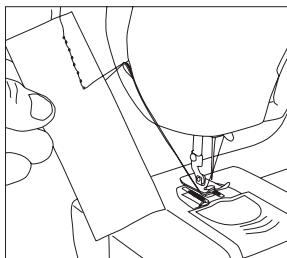
You can use stitching to lock the threads at the end of the seam or to strengthen a stitch.

1. Stitch to the end of the seam and stop.
2. Push the reverse sewing lever and stitch backwards for 1 cm (3/8 inch) from the end of the fabric.

### Removing the Material from the Machine

1. Stop the machine – raise the needle to its highest position and make sure the thread take-up lever is also in its highest position.
2. Lift the presser foot, raise the needle to its highest position and then pull the fabric out gently to the left hand side. Raise the needle to its highest position and make sure the thread take-up lever is also in its highest position.

3. Cut both threads with the thread cutter on the left hand side of the machine.



4. To prepare the machine for the next seam, pull about 10cm (4 inch) of thread through the toes of the presser foot towards the back of the machine.

## Top Stitching and Stretch Materials

You can use a straight stitch for top stitching and sewing lightweight fabrics.

Stitch Name	Pattern
Zigzag stitch	4 5 6

Turn the pattern selection dial to the zigzag stitch and then start sewing.

It is recommended that you sew using the straight stitch at the beginning and end of zigzag stitches to act as a reinforcement stitch).

## Built-In Stitches

Stitch Name	Pattern
Blind hem stitch	9
Stretch blind hem stitch	10

You can use the Blind Hem Stitch to finish the edge of a project, like the hem of a pair of trousers, without the stitch showing. Use the Blind Hem Stitch when sewing on non-stretch fabrics, and the Stretch Blind Hem Stitch for stretch fabrics.

Double Action Stitching

Stitch Name	Pattern
Bridging stitch	8
Rampart stitch	7

These stitches are used for joining two pieces of fabric, such as when making patchwork. Set the pattern selection dial to the Double Action Stitch, Bridging Stitch or Rampart Stitch.

Making a Buttonhole

Note: it is recommended that you practice making a buttonhole on a scrap piece of fabric before you try it on an actual garment.

When making buttonholes on soft fabrics, place a stabiliser material on the underside of the fabric.

Making a buttonhole is a simple process that provides reliable results.

- 1. Using tailor’s chalk, mark the position and length of the buttonhole on the fabric.
- 2. You need to sew the left bar tack first. Lower the presser foot to align the marks on the foot with the mark on the fabric.
- 3. The bar tacks of the buttonhole are sewn in the order shown.



- 4. Sew the required length using setting 11 or 12 then turn the material 90 degrees.
- 5. Switch to setting 1 and sew the required length then turn the material 90 degrees.
- 6. Switch back to the previous setting and stitch the required length.
- 7. Turn the material 90 degrees and switch back to setting one before stitching the final length of the buttonhole.

## Do's and Don'ts

Do not use this machine with a bent or broken needle.

Do not make any alterations to settings or rewind bobbins without first switching off the appliance and disconnecting the DC adaptor.

Keep hands clear of the needle whilst sewing.

Do not force material through the appliance; allow it to move at the pace of the machine.

Ensure you have selected the correct tension.

## Troubleshooting

Symptom	Possible Cause	Corrective Action
The sewing machine does not work.	<p>The machine is not plugged in.</p> <p>The main power switch is turned off.</p> <p>The bobbin-winder shaft is pushed to the right.</p> <p>You have not used the foot controller properly.</p>	<p>Plug the machine in.</p> <p>Turn on the main power switch.</p> <p>Move the bobbin-winder shaft to the left.</p> <p>Use the foot controller properly.</p>
The needle breaks.	<p>The needle is not fitted properly.</p> <p>The needle clamp screw is loose.</p> <p>The needle is bent or blunt.</p> <p>You have not used the right combination of fabric and thread.</p> <p>The upper thread tension is too tight.</p> <p>You are pulling the fabric too much.</p> <p>You have not fitted the spool properly.</p>	<p>Fit the needle properly.</p> <p>Firmly tighten the screw.</p> <p>Replace the needle.</p> <p>Choose a thread and needle that are appropriate for the type of fabric.</p> <p>Loosen the upper thread tension.</p> <p>Lightly guide the fabric.</p> <p>Fit the spool properly.</p>

<p>The upper thread breaks.</p>	<p>You have not threaded the upper thread properly, (eg; you have not fitted the spool properly or the thread has come out of the guide above the needle).</p> <p>There are knots or tangles in the thread.</p> <p>The upper thread tension is too tight.</p> <p>The thread is tangled.</p> <p>The needle is bent or blunt.</p> <p>You have not inserted the needle properly.</p>	<p>Correct the upper threading.</p> <p>Remove any knots or tangles.</p> <p>Loosen the upper thread tension.</p> <p>Remove the tangled thread.</p> <p>If the thread is tangled in the bobbin case, clean the bobbin case.</p> <p>Replace the needle.</p> <p>Insert the needle properly.</p>
<p>The lower thread is tangled or breaks.</p>	<p>You have not wound the bobbin thread properly.</p> <p>The bobbin is scratched or does not turn smoothly.</p> <p>The thread is tangled.</p> <p>Bobbin is set incorrectly.</p>	<p>Wind the bobbin properly.</p> <p>Replace the bobbin.</p> <p>Remove the tangled thread and clean the bobbin case.</p> <p>Reset the bobbin thread correctly.</p>
<p>The thread tension is incorrect.</p>	<p>You have not threaded the upper thread correctly.</p> <p>You have not wound the bobbin thread correctly.</p> <p>The thread tension is incorrect.</p> <p>Bobbin is set incorrectly.</p>	<p>Reset the bobbin thread correctly.</p> <p>Wind the bobbin thread properly.</p> <p>Adjust the tension of the upper thread.</p> <p>Reset the bobbin thread correctly.</p>

The fabric is wrinkled.	<p>You have not threaded the upper thread properly or fitted the bobbin properly.</p> <p>You have not fitted the spool properly.</p> <p>The needle is bent or blunt.</p> <p>The thread tension is incorrect.</p>	<p>Thread the upper thread and wind the bobbin thread properly.</p> <p>Fit the spool properly.</p> <p>Replace the needle.</p> <p>Adjust the tension of the upper thread.</p>
Stitches are skipped.	<p>You have not threaded the upper thread properly.</p> <p>The needle is bent or blunt.</p> <p>You have not inserted the needle properly.</p>	<p>Correct the upper threading.</p> <p>Replace the needle.</p> <p>Insert the needle properly.</p>
The stitch is not sewn correctly.	<p>The thread tension is incorrect.</p> <p>The thread is tangled.</p>	<p>Adjust the tension of the upper thread.</p> <p>Remove the tangled thread.</p> <p>If the thread is tangled in the bobbin case, clean the bobbin case.</p>
The fabric does not feed.	<p>The thread is tangled.</p>	<p>Remove the tangled thread.</p> <p>If the thread is tangled in the bobbin case, clean the bobbin case.</p>

## Care and Maintenance

Clean the outer of the machine with a soft, damp cloth.

Disconnect the mains adaptor from the DC power jack (17) before changing any settings or carrying out any maintenance.

## Ultimate Products Ltd.

Manor Mill, Victoria Street, Chadderton, Oldham, OL9 0DD

If this product does not reach you in an acceptable condition please contact our Customer Services Department by one of the following methods:

Telephone: +44 (0)333 577 9820\*

\*Telephone lines are open Monday – Friday, 9am – 5pm (Closed Bank Holidays)

Email: [customersupport@beldray.co.uk](mailto:customersupport@beldray.co.uk)

Fax: 0161 628 2126

Please have your delivery note to hand as details from it will be required.

If you wish to return this product please return it to the retailer from where it was purchased with your receipt (subject to their terms and conditions).

## Guarantee

This product is guaranteed for a period of 1 year from the date of purchase against mechanical and electrical defects.

This guarantee is only valid if the appliance is used solely for domestic purposes in accordance with the instructions and provided that it is not connected to an unsuitable electricity supply or dismantled or interfered with in any way or damaged through misuse. Under this guarantee we undertake to repair or replace free of charge any parts found to be defective. Reasonable proof of purchase must be provided.

Nothing in this guarantee or in the instructions relating to this product excludes, restricts or otherwise affects your statutory rights.

In line with our policy of continuous development we reserve the right to change this product, packaging and documentation specification without notice.

Consumables are not guaranteed i.e. plug and fuse.

The crossed out wheelie bin symbol on this item indicates that this appliance needs to be disposed of in an environmentally friendly way when it becomes of no further use or has worn out. Contact your local authority for details of where to take the item for recycling.





