WHITE SEWING MACHINE

Record in space provided below the Serial No. and Model No. of this appliance.
The Serial No. is located Rear of arm.
The Model No. is located Rear of arm.
Serial No.
Model No. 1010
Retain these numbers for future reference.
CONTENTS

- NAMES OF PARTS .................................................. 1
- ACCESSORIES .................................................... 3
- BEFORE SEWING .................................................. 4
  Detaching Extension Table ................................... 4
  Connecting Foot Controller and Power Cord .................. 5
  Changing Foot .................................................. 6
  Changing Needle ............................................... 7
  Bobbin Winding ............................................... 8
  Inserting Bobbin .............................................. 11
  Adjusting Lower Thread ...................................... 12
  Drop Feed Lever .............................................. 12
  Threading Upper Thread ...................................... 13
  Twin Needle Threading ....................................... 14
  Drawing Up Lower Thread ................................... 15
  Fabric, Thread and Needle Table ............................ 16

- STRAIGHT SEWING ................................................ 17
  Pattern Selection Dial ....................................... 17
  Stitch Length Dial ........................................... 17
  Double Presser Foot Lifter ................................... 18
  Cloth Guide ................................................... 19
  Adjusting Thread Tension ..................................... 19

- ZIP ZAG SEWING .................................................. 20
  Zigzag Width Control ......................................... 20
  Needle Position Control ...................................... 20
  Thread Tension for Zigzag Stitch ............................ 20

- MAKING BUTTONHOLES .......................................... 21
  Determine Length ............................................. 21
  Determine Width .............................................. 21
  Cutting Buttonholes .......................................... 23
  Corded Buttonholes .......................................... 23

- SEWING ON BUTTONS ............................................. 24

- OVERCASTING .................................................... 25

- OVERLOCKING ..................................................... 26

- BLIND HEM STITCH ................................................ 27
  Elastic Blind Hem Stitch .................................... 28

- STRETCH SEAM .................................................... 29

- ZIPPER SEWING .................................................... 30

- MENDING ........................................................... 31
  Patching ......................................................... 31
  Mending a Rip .................................................. 31
  Darning .......................................................... 32

- PIN TUCKING ....................................................... 33

- SHELL STITCHING ................................................ 34

- LAPPED SEAM SEWING .......................................... 35

- SMocking .......................................................... 36

- APPLIQUE WORK .................................................... 37

- EMBROIDERY ....................................................... 38

- MAINTENANCE ..................................................... 39
  Cleaning .......................................................... 39
  Oiling ............................................................. 40

- TROUBLE CHART ................................................... 41
  Changing Light Bulb ........................................... 42
NAMES OF PARTS

Thread guide for bobbin winding
Take up lever
Upper thread tension dial
Face cover
Thread guide for upper threading
Presser foot thumb screw
Presser foot
Drop feed lever
Shuttle cover
Spool pins (retractable)
Pattern selection dial
Reverse sewing button
Zigzag width control
Stitch length dial
Needle position control
Accessory box
Free arm

Bobbin winding spindle
Bobbin winding stop
Handwheel
Stop motion knob
Power supply switch
Socket
Thread guide for upper threading
Handle
Presser foot lifter
Thread cutter
Needle plate
Feed dog
### 2. ACCESSORIES

<table>
<thead>
<tr>
<th><strong>Zigzag foot</strong></th>
<th><strong>Bobbins</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>(on machine)</td>
<td>(3 pcs.)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Buttonhole foot</strong></th>
<th><strong>Needles</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ordinary needles (3 pcs.)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Button sewing foot</strong></th>
<th><strong>Screw drivers</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>small</td>
</tr>
<tr>
<td></td>
<td>(large)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Zipper foot</strong></th>
<th><strong>Oiler</strong></th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th><strong>Darning foot</strong></th>
<th><strong>Blind hem guide</strong></th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th><strong>Cloth guide</strong></th>
<th><strong>Buttonhole cutter</strong></th>
</tr>
</thead>
</table>

Accessories are stored in built-in compartment at right front of machine.
3. BEFORE SEWING

Machine is stored in flat-bed style which makes your work easier in ordinary sewing.

Detaching Extension Table

Push lock lever to left.

Open extension table in direction of arrow.

Slide it off and the machine is used as a free-arm model.

Free-arm is convenient to sew or embroider: trousers, sleeves, cuffs of T-shirts, blouses, etc.

Do vice-versa of above steps to attach extension table.
Connecting Foot Controller and Power Cord

Connect foot controller and power cord (1 2)

Before plugging in your machine, be sure that voltage is same as that of your machine. (written on a plate at back of machine)

* Specifications vary from country to country.

Switch on power to put on machine and turn on sewing light.

Always switch off or unplug machine when not in use.

The more you press foot controller, the faster the machine runs.
Changing Foot

Raise presser foot lifter ①.

Set needle in the highest position by turning handwheel towards you ②.

Remove foot by loosening screw with screwdriver.

Replace new foot and tighten screw.
Changing Needle

Set needle in the highest position by turning handwheel towards you.

Loosen needle clamp screw and take out needle.

With flat face away from you, insert a new needle into groove of needle bar.

Push needle until it reaches stopper and tighten needle clamp screw firmly.

Always use a straight needle with a sharp point.

Using defective or worn needles not only causes stitch skipping, breakage of needles or snapping of thread; it also can damage hook and needle plate.

Proper needle:

- straight shaft
- sharp point
Bobbin Winding

Set needle in the highest position by turning handwheel towards you.

Open shuttle cover.

Open latch of bobbin case and take it out.

Close latch of bobbin case and bobbin comes out easily.
Push back to fold handle.
Pull out spool pin.

Put a spool on spool pin.
Draw thread from spool pin through thread guide and pretension device, following numbers ①, ② and ③.

Wind thread clockwise around bobbin several times.
Push bobbin on to spindle.

Holding handwheel with your left hand disengage handwheel by unscrewing stop motion knob.
Push bobbin to right and press down foot controller.

Machine stops automatically when winding is full.

Push bobbin to left.

Take off bobbin from spindle and cut thread.

Retighten stop motion knob.

If bobbin is wound unevenly as shown, open face cover and loosen set-screw of the guide for bobbin winding, by using screwdriver and adjust height.
Inserting Bobbin

Place bobbin in its case with thread running in direction of arrow.

Guide thread into slot \( a \) of bobbin case.

Pulling thread to left, bring it under tension spring then to delivery eye \( b \).
Adjusting Lower Tension

To test bobbin tension, hang and shake bobbin case as shown.

At proper tension bobbin case will gradually drop a small amount.

To adjust tension, turn adjusting screw with small screwdriver.

Raise needle in the highest position.

Leave end of thread of about 10 cm (4") from bobbin case. Take hold of latch and push bobbin case into hook. Release latch when bobbin case is fully inserted.

Drop Feed Lever

The lever is on right side of hook.

To lower feed dog, move lever down to position. This position is for button sewing, darning and embroidery.

For normal sewing, move lever up to position.
Threading Upper Thread

Raise presser foot lifter.
Raise take-up lever to the highest position by turning handwheel towards you.

Thread following numbers 1-7.

Pass thread through guide 1.

Lead thread either side of tension disc 2.

Hook it to guide 3 from down to upwards.

Thread take-up lever 4.

Pass thread to guide 5 from right to left, and guide 6 (left one) then needle eye 7.

Leave end of thread of about 15 cm (6").
Twin Needle Threading

Thread in the same way as normal threading, except at points 2, 6 and 7.

At point 2, pass threads separately to right and left of tension disc.

At guide 6, pass one of threads to right guide and the other at left guide.

At point 7, thread from right guide should be lead to right needle eye, and from left guide to left needle eye.

Leave ends of threads of about 15 cm (6").

n.b. When using zigzag width control, set it between 0 and 2.5. To set control above 2.5 will cause needle to break.
Drawing Up Lower Thread

Hold end of upper thread with left hand.

Turn handwheel slowly towards you until needle moves down and up again.

Pull upper thread slowly and lower thread will be brought up in a loop.

Pull out both threads to about 15 cm (6") and place them together under presser foot on left.
## Fabric, Thread and Needle Table

<table>
<thead>
<tr>
<th>FABRIC</th>
<th>THREAD</th>
<th>NEEDLE</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>European Cotton</td>
<td>Mercerized Cotton</td>
<td>Covered Polyester, Silk, Nylon</td>
</tr>
<tr>
<td>ERY SHEER; Lace, voile, Chiffon, Net</td>
<td>70</td>
<td>60</td>
<td>Silk Nylon</td>
</tr>
<tr>
<td>HEER; Blouse Crepe, awn, Organdy, Taffeta</td>
<td>50–70</td>
<td>60</td>
<td>Silk Nylon</td>
</tr>
<tr>
<td>LIGHT-WEIGHT; Crepe, Vool, Brocade, Velvet</td>
<td>30</td>
<td>50</td>
<td>Silk</td>
</tr>
<tr>
<td>MEDIUM; Wool, Silk, linen, Velvetten, Plaque, aille, Terry cloth</td>
<td>30</td>
<td>50</td>
<td>Silk</td>
</tr>
<tr>
<td>HEAVY; Denim, Duck, sailcloth</td>
<td>30</td>
<td>Heavy Duty</td>
<td>C.C. Poly.</td>
</tr>
<tr>
<td>XTRA HEAVY; Upholstery, Canvas, twining</td>
<td>30</td>
<td>Heavy Duty</td>
<td>C.C. Poly.</td>
</tr>
<tr>
<td>BRIGHT</td>
<td>Tricotower net</td>
<td>50–70</td>
<td>60</td>
</tr>
<tr>
<td>MEDIUM-WEIGHT; Jersey, Double Knit, over Net</td>
<td>30</td>
<td>50</td>
<td>Silk Nylon</td>
</tr>
<tr>
<td>HEAVY-WEIGHT; Double knit, Power Net</td>
<td>30</td>
<td>50</td>
<td>Silk Nylon</td>
</tr>
<tr>
<td>AKE-FURS, VELOURS</td>
<td>30</td>
<td>Heavy Duty</td>
<td>C.C. Poly.</td>
</tr>
<tr>
<td>LEATHER</td>
<td>Nylons Films</td>
<td>30</td>
<td>50</td>
</tr>
<tr>
<td>LIGHT-TO-MEDIUM WEIGHT</td>
<td>30</td>
<td>50</td>
<td>C.C. Poly.</td>
</tr>
<tr>
<td>HEAVY LEATHER</td>
<td>30</td>
<td>Heavy Duty</td>
<td>C.C. Poly.</td>
</tr>
<tr>
<td>DECORATIVE TOUCHES</td>
<td>OP STITCHING</td>
<td>Silk twist</td>
<td>100–110</td>
</tr>
<tr>
<td>MACHINE EMBROIDERY</td>
<td>Size 50–70</td>
<td>65–80</td>
<td>9–11</td>
</tr>
</tbody>
</table>

---

---
4. STRAIGHT SEWING

Set machine as shown.

Pattern Selection Dial

Turn dial to choose pattern. Dial can be turned either to right or to left.

M Straight & Zigzag Stitch
1 Blind Hem Stitch
2 Elastic Blind Hem Stitch
3 Multiple Zigzag
4-7 Super Automatic Reverse Stitches
8 Buttonhole

n.b. Always make sure needle is in the highest position when operating dial.

Stitch Length Dial

Set dial at indicating point (a) according to stitch size required.

For a longer stitch, turn dial downwards. For a shorter stitch, turn it upwards.

For normal sewing it is set between 2 and 3.
Place fabric under foot about 1 cm (0.4 "") inside the edge. Lower presser foot lifter.

**Double Presser Foot Lifter**

In order to obtain wider gap when using very thick materials, firmly push presser foot lifter up as far as it will go.

To reinforce seam, sew backwards to the edge of fabric by pushing reverse sewing button.

Release button and commence forward sewing guiding fabric by hand as it is fed. Never pull material.
**Cloth Guide**

Use cloth guide when sewing a long seam of regular distance from edge of material. Set guide in hole on arm, at right of needle plate, and adjust distance. Run machine with edge of fabric touching guide. Position cloth guide at an angle to sew a curved seam.

Sew reverse stitches for reinforcement at end of seam. Draw fabric to left when sewing is finished.

Cut threads with thread cutter behind presser bar.

**Adjusting Thread Tension**

Test stitch performance on a scrap of material you are going to use. With correct tension (a), upper and lower threads tension is equal and strong enough to lock both threads in center. If upper tension is too tight (loose), upper (lower) thread lies straight along upper (lower) surface of fabric (b,c). Correct by turning tension dial.
5. ZIGZAG SEWING

Set machine as shown.

To prevent seam ends unravelling, set machine for straight stitch and sew in reverse at beginning and ending of seam.

Zigzag Width Control

Set control at required number. Larger the number, wider the stitch. Set it at 0 for straight sewing.

Make sure needle is in upper position when you set control.

<table>
<thead>
<tr>
<th>Position</th>
<th>Straight stitch</th>
<th>Zigzag stitch (width 2.5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td></td>
<td>Left position: button sewing, etc.</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td>Middle position: straight stitch, buttonholes, etc.</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>Right position: blind hem, overlock, etc.</td>
</tr>
</tbody>
</table>

Needle Position Control

Needle position can be changed by turning needle position control.

When selecting position, make sure needle is in upper position to avoid tearing material or bending needle.

Thread Tension for Zigzag Stitch

Better-looking zigzag stitching requires less upper tension than straight stitching. Loosen upper tension slightly.
6. MAKING BUTTONHOLES

Set machine as shown.

**Determine Length**

Measure diameter and thickness of button and add 0.3cm (1/8") for bar tacks.
Mark buttonhole size on material.

**Determine Width**

Determine width according to diameter of button, its thickness, and kind of material.

Attach buttonhole foot.
Completely push back sliding part \(d\) of buttonhole foot.
Place material under foot so that marking of buttonhole passes through center of foot and arrow \(b\) of foot indicates beginning line of marking.
Bar tacking: Set pattern selection dial to 1 (C) and sew 5-6 stitches.

Left side: Change pattern to 2 (2) and sew left side from front to back until it reaches end line. Remember the point where arrow shows so that it is not necessary to mark end lines for all buttonholes.

Bar tacking: Change pattern to 3 (3) and sew 5-6 stitches.

Right side: Change pattern to 4 (4) and sew right side until it catches first bar tack.

Quick finish: To prevent unstitching, set zigzag width at 0 and proceed for a few stitches.
Cutting Buttonholes

Stick a needle through bar tacks to prevent over-cutting.

Cut buttonhole along centre with buttonhole cutter.

Corded Buttonholes

For stretch fabrics such as knits, a corded buttonhole is effective to keep finished buttonhole in shape.

Hook filler cord on top spur and lead ends of cord under foot, pull taut, and hook them to bottom notches as shown.

Proceed with stitching as for regular buttonholes.

When buttonhole is completed, pull filler cord ends so that loop on the other end disappears into buttonhole stitching.

Thread ends of cord to reverse side and tie, or cut both ends of cord.
7. SEWING ON BUTTONS

Set machine as shown.

Position a button and material under foot. When needle comes to left side of stitch, lower foot. Raise needle and adjust zigzag width so that needle comes to right hole of button.

Run machine at medium speed and sew 5-6 zigzag stitches.

Stop machine when needle is in upper position.

a) Set zigzag width control to 0 and sew 3-4 stitches to prevent unstitching.

OR

b) Draw out work and cut off threads.

Draw thread ends through to wrong side and tie a knot.
8. OVERCASTING

For light weight material:
Set machine as shown.

Sew carefully so that all stitches on right side are flush with edge of fabric.

For thick and elastic material:
Set machine as shown.
Sew in the same way above.
9. OVERLOCKING

Overlocking stitches make it possible to sew and overcast seams at the same time.

Set machine as shown.

a. For medium, thin material
b. For medium, thick material

Put two pieces of cloth together with right sides facing and sew.

To prevent edges from fraying, sew so that right side stitches drop outside the edge of material.

In some cases overlocking stitches can be used for overcasting.
10 BLIND HEM STITCH

Set machine as shown.

Loosen presser foot thumb screw and attach blind hem guide.

Tighten screw.

Fold material as shown and place it under foot.

For a neater finish, it is preferable to baste or iron hem beforehand.
Sew carefully, guiding fold against guide so that straight stitches are made on hem edge, and slanting stitches pierce only one or two threads of fold.

(a) Correct seam.
(b) Needle is catching edge of fold too much.
(c) Needle is not catching edge of fold at all.

Elastic Blind Hem Stitch

For elastic materials, set machine as shown and sew in the same way as for normal blind hem stitch.
11. STRETCH SEAMS

A ball-point needle is essential. Paper may be laid under knits for smoother feeding.

(a) **Medium-weight fabrics**
- double knit, jersey.

Apply elastic triple stitch.

(b) **Light-weight fabrics**
Apply small zigzag. Reduce upper and lower thread tension.

(c) **For Very elastic fabrics**
- spandex (power net)

Use lapped or abutted seam. Apply multiple zigzag.
12. ZIPPER SEWING

Set machine as shown.

By using special zipper foot with sliding adjuster, zipper sewing can be easily done without turning fabric.

Loosen screw ⑧ and set foot so that needle comes into position b. Tighten screw.

Sew right side of zipper guiding fabric carefully so that right side teeth of zipper are parallel with left edge of foot.

Re-set foot so that needle comes into position ⑧. Sew left side of zipper in the same way.
13. MENDING

Patching
Set machine as shown.

Place the patch over the worn part.
Sew along the edge of the patch on the right side. Trim away the worn part close to the seam on back side.

Mending a Rip
Set machine in the same way as for patching.
Sew the edges of tear together first.
Then sew two more seams on either side.
A piece of gauze can be placed underneath to reinforce the rip.
Darning

Set machine as shown.

Stretch fabric over the hoop (a) or sew with free arm (b) according to the part you are going to darn.

Sew over the worn-out part with closely spaced, stitches guiding material back and forth by hand.

By making turning points blunt, the darned part becomes softer and more flexible.
14 PIN TUCKING

Set machine as shown.
For better appearance, use sheer material and tighten lower thread a little.
For twin needle threading, see p. 14.

Mark lines with pencil or tailor’s chalk, and sew on lines.
15 SHELL STITCHING

Silk, nylon organdy or similar sheer fabrics are suitable.

Set machine as shown.

Fold edge of material. With folded edge to left, place it under presser foot.

Pull thread ends towards back when starting sewing.

Make sure needle misses raw edge of fold when it moves side ways.
16. LAPPED SEAM SEWING
Set machine as shown.

Place one piece of fabric over another according to the width of stitch size.
(a) For non-fray fabrics.
(b) For easy to fray fabrics.

Sew over folded area from right side.
17. SMOCKING
Set machine as shown.

To make a gather on fabric, sew two straight stitchings with stitch length 4 and very loose upper tension.

Make knots in one end.

Gather fabric toward knots while holding the other end of lower threads with fingers.

Sew smocking stitches on gathered part.

Take out threads for straight stitching after you finish sewing.
18. APPLIQUE WORK

Set machine as shown.

Draw design on material to be used as an applique and cut it out. Place cut-out on base material and baste it.

Sew around outline with zigzag stitch adjusting stitch length and width according to shape and size of cut-out and type of base material.

To change direction at corners, or to sew very small circles, stop machine, positioning needle just away from edge of cut-out, lift presser foot and turn material. Lower presser foot and continue sewing.

Sew a few stitches at end with zigzag width at 0. This is to prevent unstitching.
19. EMBROIDERY

Set machine as shown.

Remove foot, and holder screw.

To avoid lower thread being pulled up, reduce upper thread tension.

For good embroidery, it is important to use correct needles and thread.

Use thin embroidery silk for upper thread and a thinner silk of same kind and color for lower thread.

Trace your design on material and center it in embroidery hoop.

Make sure material is taut.

Pull out lower thread by turning hand wheel towards you while holding upper thread lightly.

Lower presser foot lifter.

Hold both threads and start sewing along outline of design with satin stitch.

Continue sewing guiding hoop by hand.

To finish filling, sew several stitches with zigzag width at 0.

Lay typewriting paper underneath when embroidering sheer fabric.
20. MAINTENANCE

Your machine requires regular cleaning and oiling for satisfactory sewing performance. A machine which is used for a few hours a day needs to be cleaned and oiled once a month.

Cleaning
Remove foot and needle.
Remove needle plate.

Brush off all dust and lint on feed dog with cleaning brush.

Turn latches outwards.

Remove hook race cover.
Remove hook. Clean hook race with a cleaning brush and a soft cloth.
**Oiling**

Use oil manufactured specially for sewing machine use. Other oils will eventually cause mechanism to jam.

Apply one drop of oil to part of hook where friction occurs.

Open face cover and apply oil in the same way.

Be careful not to apply too much oil or it may stain your material and cause some sewing difficulty.

After oiling, run machine for 1-2 minutes to allow oil to penetrate to every part.

Remove top cover by loosening screws a and b with large screwdriver.

Apply one drop of oil to lubricating points indicated by arrows.
## 21. TROUBLE CHART

<table>
<thead>
<tr>
<th>PROBLEM</th>
<th>PROBABLE CAUSE</th>
<th>CORRECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breaking lower thread</td>
<td>Thread not wound evenly on the bobbin or not drawn up correctly</td>
<td>P.10, P.15</td>
</tr>
<tr>
<td></td>
<td>Lower thread tension too tight</td>
<td>P.12</td>
</tr>
<tr>
<td></td>
<td>Lint stuck in the bobbin case and inside the tension spring</td>
<td>Remove lint and fluff with a cleaning brush</td>
</tr>
<tr>
<td>Skipping stitches</td>
<td>Needle not fully inserted</td>
<td>P. 7</td>
</tr>
<tr>
<td></td>
<td>Needle bent</td>
<td>P. 7</td>
</tr>
<tr>
<td></td>
<td>Size or type of needle and thread not suitable for the material</td>
<td>P.16</td>
</tr>
<tr>
<td></td>
<td>Incorrect upper threading</td>
<td>P.13</td>
</tr>
<tr>
<td></td>
<td>Too much oil on the hook</td>
<td>P.40</td>
</tr>
<tr>
<td>Irregular stitches</td>
<td>Incorrect size of needle for the material</td>
<td>P.16</td>
</tr>
<tr>
<td></td>
<td>Upper thread tension too loose</td>
<td>P.19</td>
</tr>
<tr>
<td></td>
<td>Incorrect lower tension</td>
<td>P.12</td>
</tr>
<tr>
<td>The material not fed correctly</td>
<td>Pattern selection dial not set correctly</td>
<td>P.17</td>
</tr>
<tr>
<td></td>
<td>Incorrect feed dog height</td>
<td>P.12</td>
</tr>
<tr>
<td></td>
<td>Lint stuck on the feed dog</td>
<td>P.39</td>
</tr>
<tr>
<td>PROBLEM</td>
<td>PROBABLE CAUSE</td>
<td>CORRECTION</td>
</tr>
<tr>
<td>--------------------</td>
<td>-----------------------------------------------------</td>
<td>------------</td>
</tr>
<tr>
<td>The material</td>
<td>Upper or lower thread tension too tight</td>
<td>P.12, P.19</td>
</tr>
<tr>
<td>puckers</td>
<td>Stitch too long for material</td>
<td>P.17</td>
</tr>
<tr>
<td></td>
<td>Thread too thick</td>
<td>P.16</td>
</tr>
<tr>
<td></td>
<td>Incorrect threading of upper or lower thread</td>
<td>P.13, P.11</td>
</tr>
<tr>
<td>Breaking needle</td>
<td>Needle not correctly inserted</td>
<td>P. 7</td>
</tr>
<tr>
<td></td>
<td>Needle bent</td>
<td>P. 7</td>
</tr>
<tr>
<td></td>
<td>Needle clamp screw too loose</td>
<td>P. 7</td>
</tr>
<tr>
<td></td>
<td>Upper thread tension too tight</td>
<td>P.19</td>
</tr>
<tr>
<td></td>
<td>Needle too fine for the material</td>
<td>P.16</td>
</tr>
<tr>
<td></td>
<td>Dials and levers have been changed while the needle</td>
<td>P.17, P.20</td>
</tr>
<tr>
<td></td>
<td>was down in the material</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Zigzag width set more than 2.5 while twin needle</td>
<td>P.14</td>
</tr>
<tr>
<td></td>
<td>was attached</td>
<td></td>
</tr>
</tbody>
</table>

n.b. If trouble is still apparent in the machine, please consult your nearest dealer.
Do not try to correct fault by yourself.

**Changing Light Bulb**

Unplug the machine.
Open face cover as shown.

Remove bulb by unscrewing it in counterclockwise.
Install a new bulb by screwing it in clockwise.