



**INSTRUCTION MANUAL
FOR
MODEL KH-260**

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ORIGINAL PATTERNS

TUCK STITCH PATTERN (No. 1p, 2p, 3p, 4p, 5p, 7p, 8p)



Card No. 2p



Card No. 3p



Card No. 4p



Card No. 5p



Card No. 8p

TWO COLOUR TUCK STITCH PATTERN (No. 1p, 2p, 3p, 4p, 5p, 7p, 8p)



Card No. 2p



Card No. 4p



Card No. 7p

SKIP STITCH PATTERN (No. 1p, 2p, 3p, 4p, 5p, 6p, 7p, 8p)



Card No. 2p



Card No. 3p



Card No. 5p



Card No. 6p



Card No. 7p

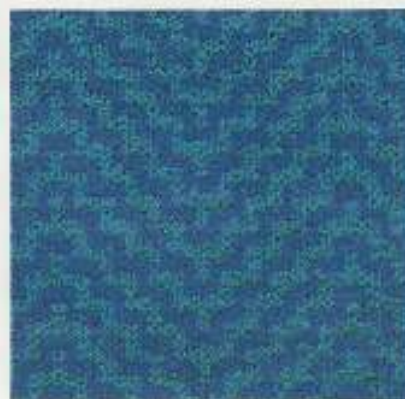


Card No. 8p

TWO COLOUR SKIP STITCH PATTERN (No. 1p, 2p, 3p, 4p, 5p, 6p, 7p, 8p)

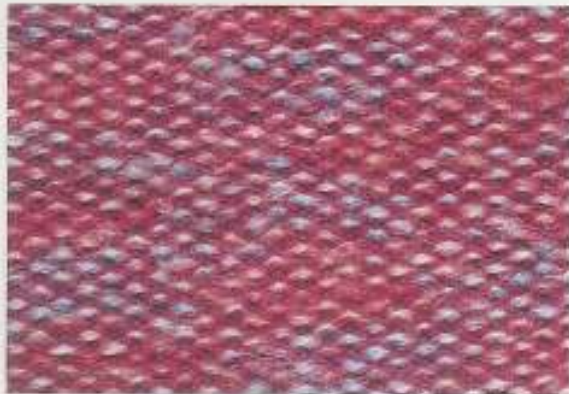


Card No. 3p



Card No. 8p

WEAVING PATTERN (Card No. 1p, 2p)



Card No. 1p



Card No. 2p

WEAVING MOTIF PATTERN



Card No. 1p

FAIRISLE PATTERN

(Card No. 1p, 2p, 6p, 7p, 8p, 9p, 10p, 11p, 12p, 15p)



Card No. 1p



Card No. 2p



Card No. 6p



Card No. 7p



Card No. 8p



Card No. 9p



Card No. 11p

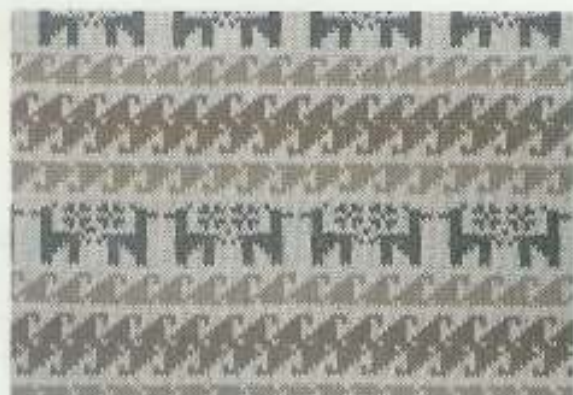


Card No. 12p



Card No. 15p

DOUBLE LENGTH PATTERN



Card No. 9p

Normal



Card No. 9p

Double Length

FAIRISLE MOTIF PATTERN

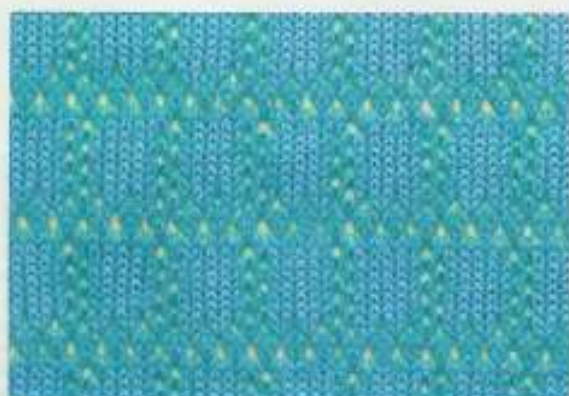


Card No. 10p

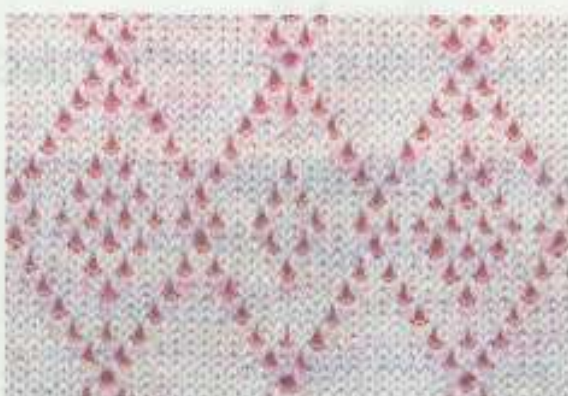
THREAD LACE PATTERN (Card No. 1p, 11p, 12p, 13p, 14p, 15p)



Card No. 11p

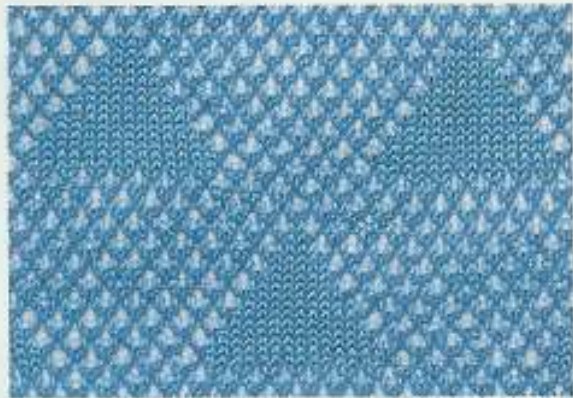


Card No. 12p



Card No. 13p

DOUBLE LENGTH PATTERN



Card No. 14p



Card No. 15p

THREAD LACE MOTIF PATTERN

PAIRSLE MOTIF PATTERN



Card No. 15p



PLATING YARN KNITTING

TUCK STITCH PLATING YARN KNITTING



FRONT

BACK



FRONT

BACK

Card No. 1p

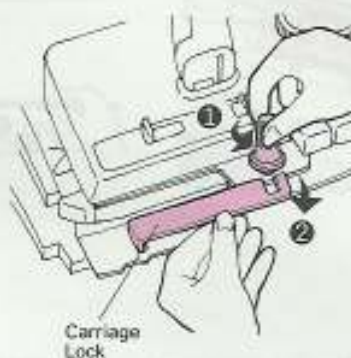
HOW TO USE THE KNITTING MACHINE

1. SETTING-UP THE KNITTING MACHINE

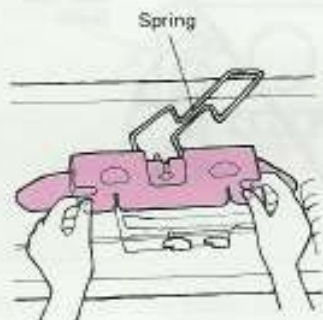
1) Place the machine on a firm table, with the Carrying Case Handle away from you and unlock the catches.



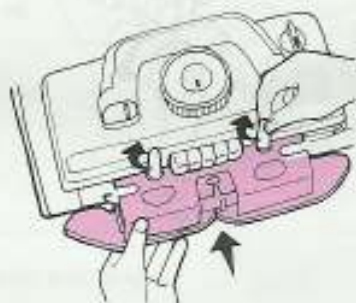
2) Loosen the Knob and remove the Carriage Lock.



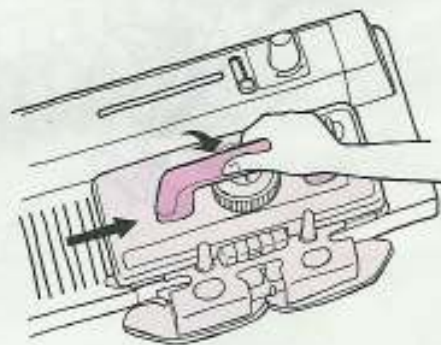
3) Take out the Sinker Plate Assembly from the Carrying Case.



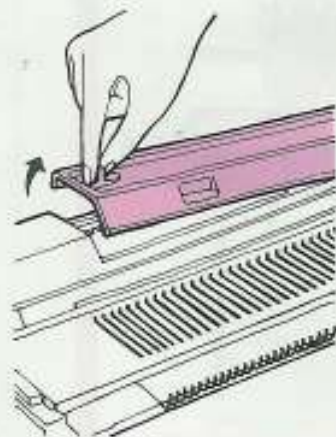
4) Screw the Sinker Plate Assembly on the K-Carriage.



5) Pull the Carriage Handle up towards you and move the carriage to the right.



6) Open the Accessory box.



7) Take two Table Clamps out of the box.



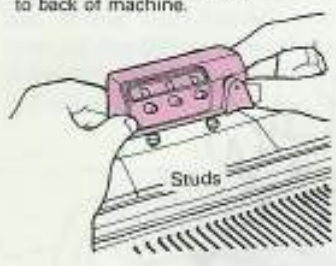
8) Fasten the machine to the table by the Table clamps.



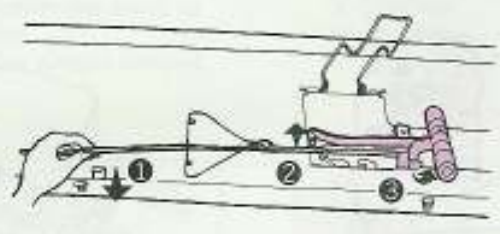
HOW TO USE THE KNITTING MACHINE WITH LIFTERS

9) Set the Row Counter onto the two studs on the machine.

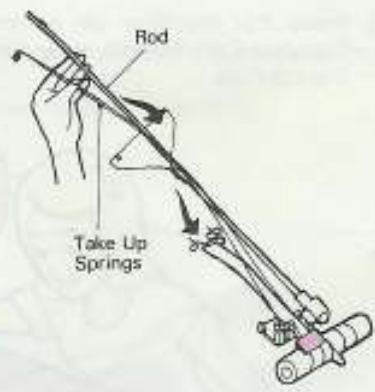
Place onto studs and push to back of machine.



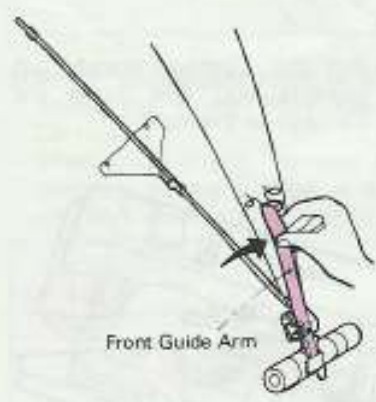
10) Take out the Yarn Tension Unit.



11) Release the Take Up Springs.



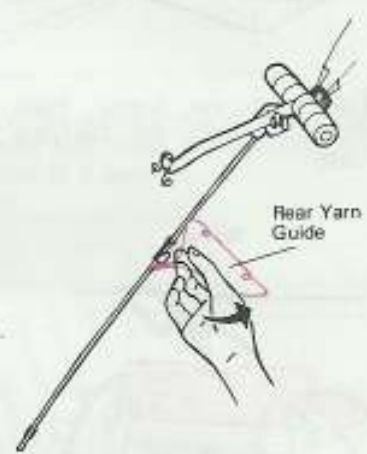
12) Pull up the Front Guide Arm as far as it goes.



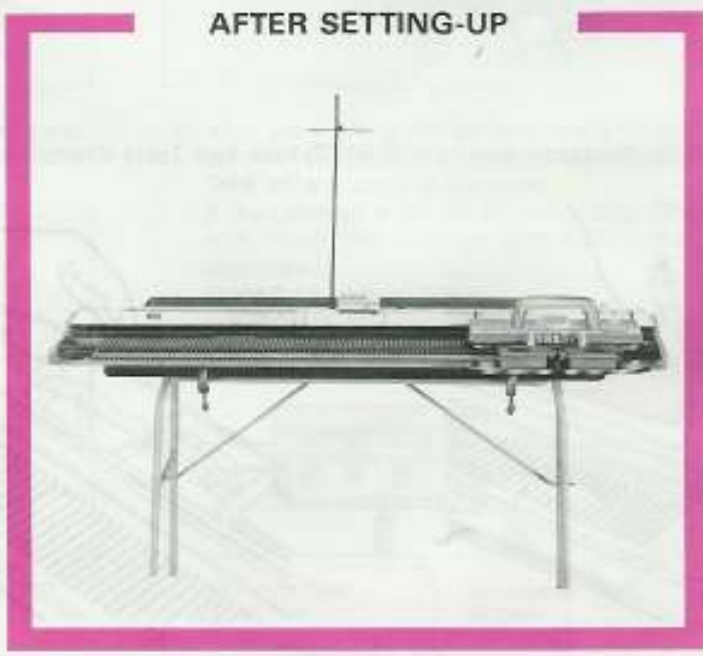
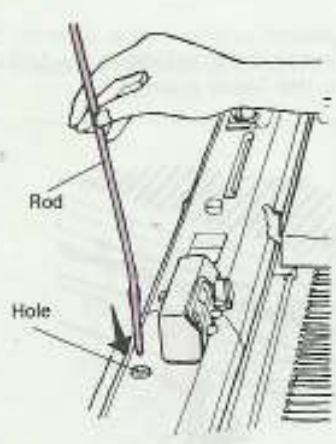
13) Then pull up the Take Up Springs until you hear "click".



14) Lift up the Rear Yarn Guide.

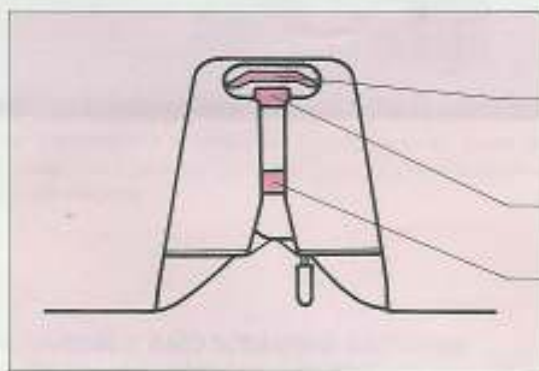
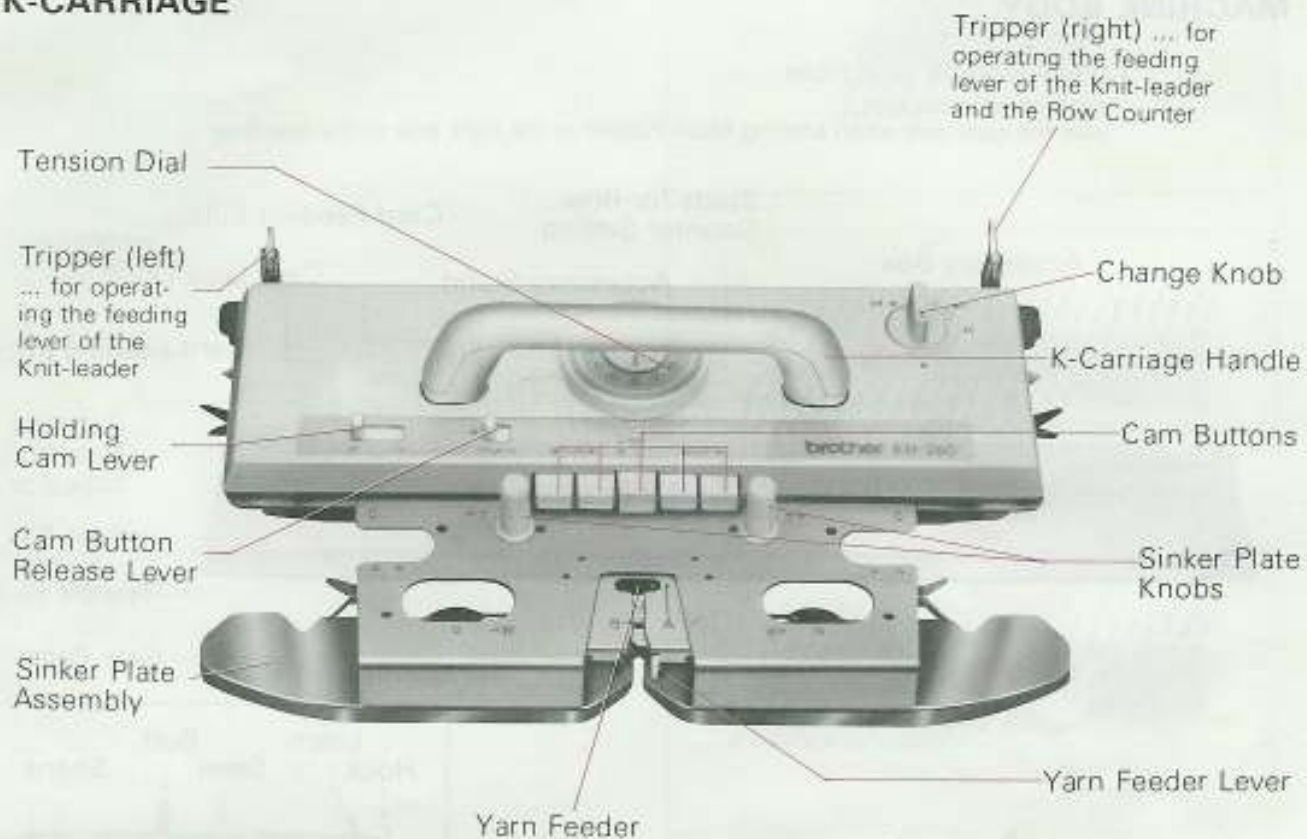


15) Insert the end of the Rod into the hole of the machine.



2. PARTS NAME

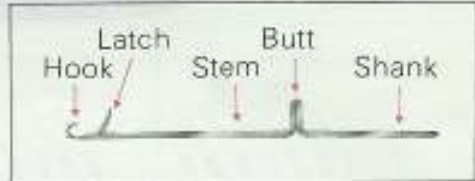
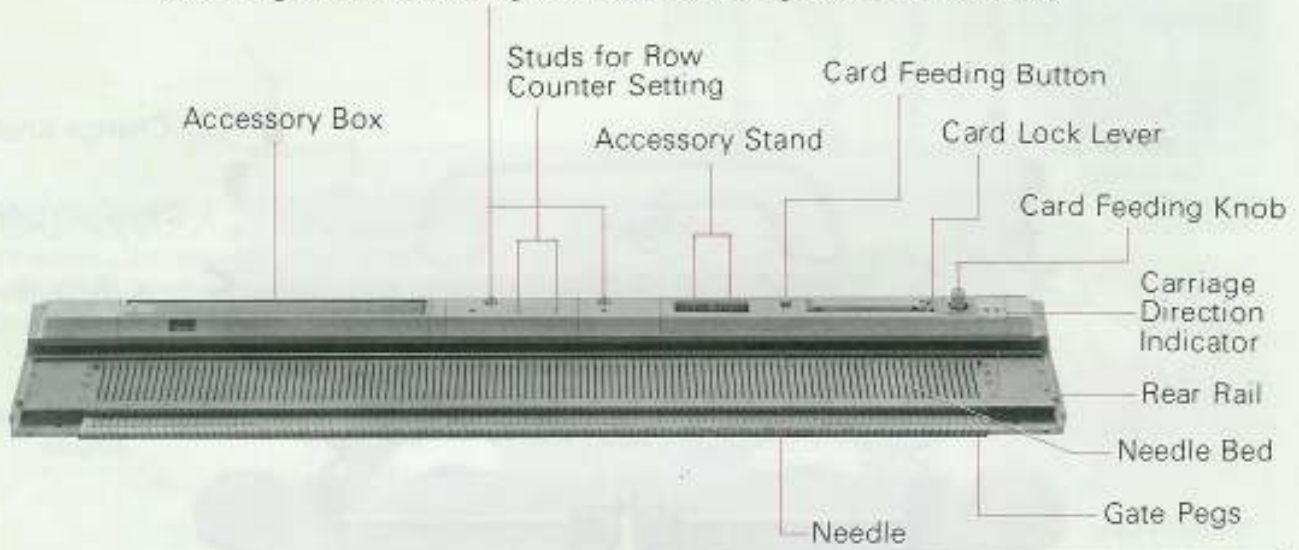
K-CARRIAGE



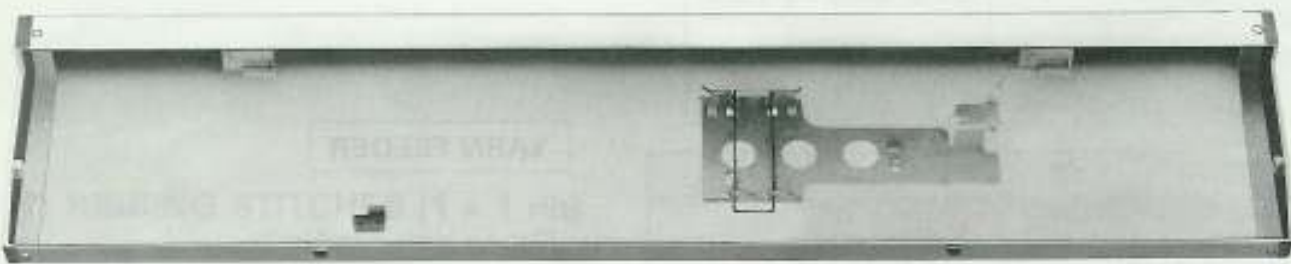
YARN FEEDER

MACHINE BODY

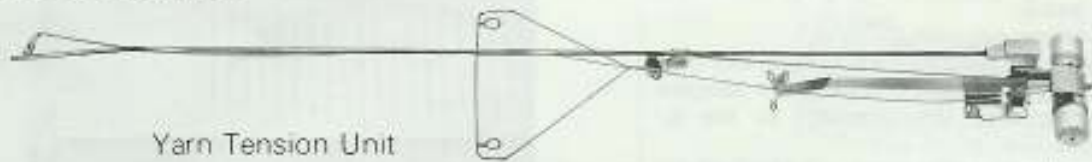
Yarn Tension Unit Hole
 Use the left hole first.
 Use the right one when knitting Motif Pattern at the right side of the machine.



CASE



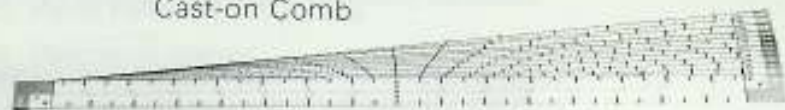
ACCESSORIES



Yarn Tension Unit



Cast-on Comb



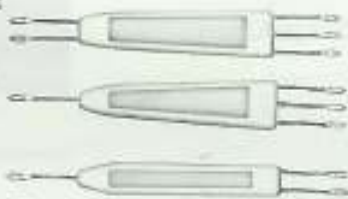
Stitch Measure Scales



Wheel Brushes (L) (R)



Row Counter



Transfer Tools



Latchet Tool



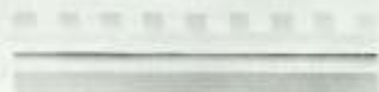
Special Knitting Oil



Claw Weights (6)



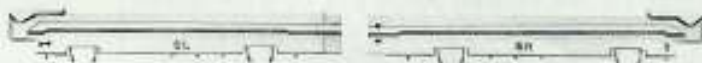
Spare Needles (2)



Needle Pusher



Crochet Hook



Motif Knitting Cams (L) (R)



Tapestry Needle



Table Clamps



Yarn Wax



Hand Brush



Punch Card Holder Pin



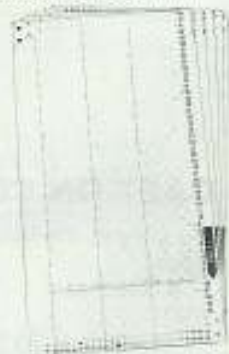
Cast-on Thread



Carriage Lock



Snaps (4)



Punch Cards (15 pcs.)

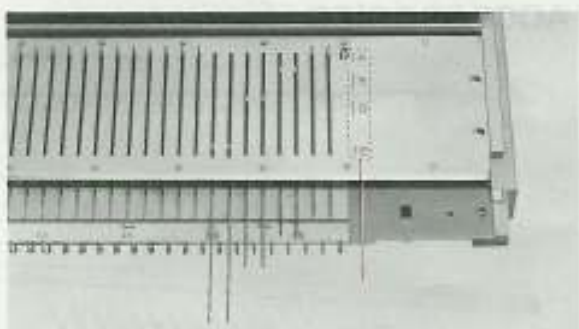
3. BEFORE STARTING TO KNIT

(1) NEEDLE POSITION

On either side of the needle bed there appears the marks A, B, D and E.

- A ... Non-working position.
- B ... Working position (Used for general work).
- D ... Pattern knitting position (Selected Needles are brought to this position by the K-Carriage).
- E ... Holding position (The stitch will 'Hold' on the needle until released. Used for shaping e.g. socks, necklines, darts.)

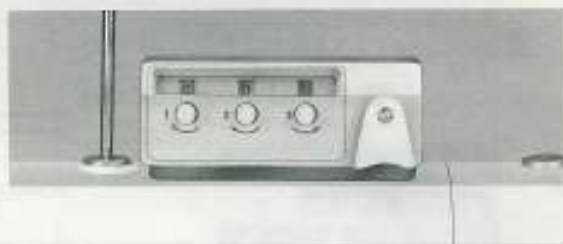
When you fold up the machine, return the needles to position A.



(2) ROW COUNTER

Row Counter shows the number of rows knitted with the K-Carriage.

When you want to set the number to "0" again, turn the knob in the direction of arrow.



(3) TENSION DIAL



This dial is graduated from 0 to 10, each space being subdivided into three parts.

The size of stitch is adjusted by the tension setting on the Carriage Tension Dial. 0 denotes the tightest tension (i.e. the smallest stitch) and 10 is the loosest tension (i.e. the largest stitch).

Adjust the dial according to the thickness of the yarn.

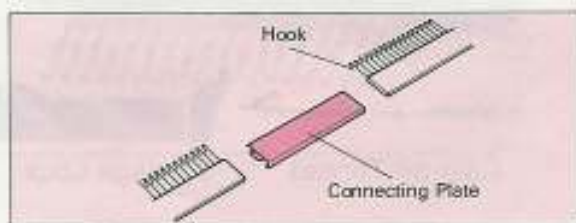
(4) CAST-ON COMB

You can choose the length according to the number of needles.

114 Stitches

↓

84 Stitches + 30 Stitches



(5) CAM BUTTON AND CAM BUTTON RELEASE LEVER

Use the Cam Buttons according to the pattern you want and release them by sliding the Cam Button Release Lever to right.

CAM BUTTONS

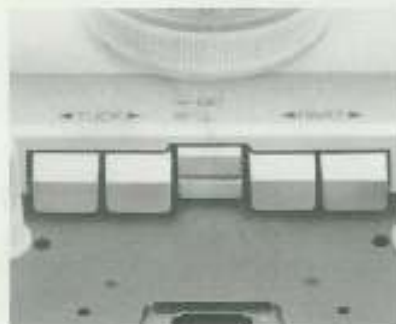
TUCK STITCH PATTERN



FAIRISLE PATTERN



THREAD LACE PATTERN



SKIP STITCH PATTERN



CAM BUTTON RELEASE LEVER



(6) CHANGE KNOB

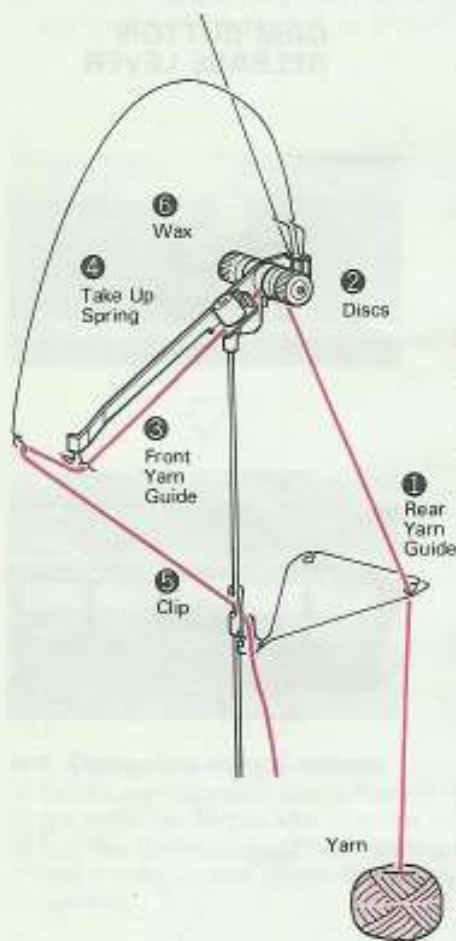


- N ... For Stocking Stitch and Lace patterns
- KC ... For stitch designs that require needle selection
- SM ... For Single Motifs
- CR ... To release the K carriage from the needle bed

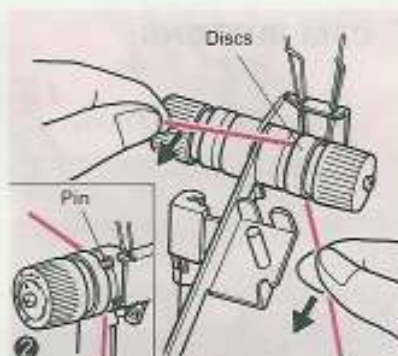
4. BASIC OPERATION

(1) THREADING THE YARN

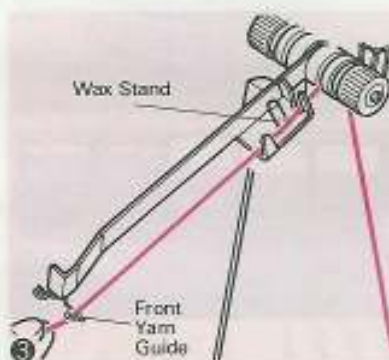
Thread the Yarn Tension Unit following the order shown.



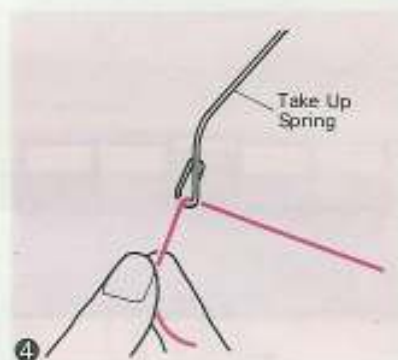
Pass the yarn from the ball through the Rear Yarn Guide sliding the yarn through the eyelet.



Pass the yarn under the Pin and between the two Discs from behind. (Hold the yarn as shown above and pull it towards you so that the yarn goes under the Pin.)



Thread the Front Yarn Guide.



Thread the yarn into the Eyelet of the Take Up Spring.



For Medium Yarn

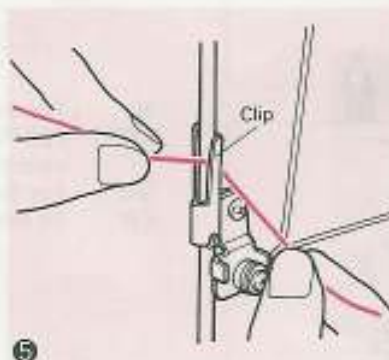


For Thick Yarn

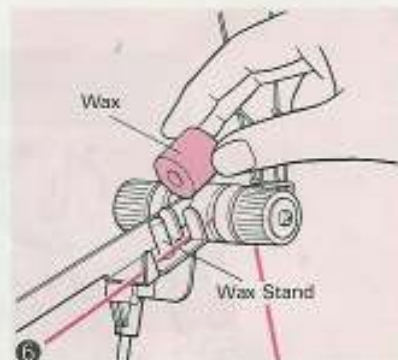


For Chunky Yarn

Set the arrow mark according to the thickness of yarn



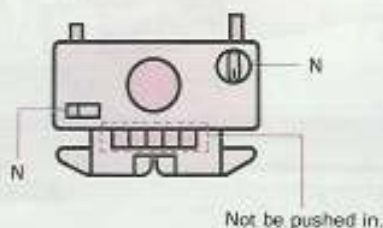
Clip the yarn under the Yarn Clip.



When you start knitting, set the Wax from the accessory box on the special stand. The Wax will help the yarn to slide more smoothly.

(2) STOCKING STITCH

1) Set the K-Carriage as shown in the diagram.



2) Bring forward 40 needles to B position using flat side of 1/1 needle pusher. (20 needles on either side of the center mark "0".)



3) Take the carriage across the needle bed a few times to align the needles, finishing with the carriage on the right.



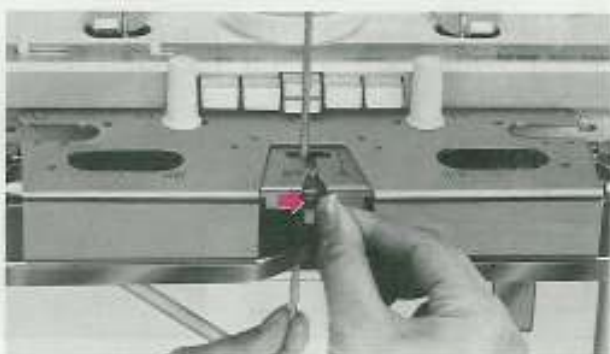
4) Push the Yarn Feeder Lever to the left.



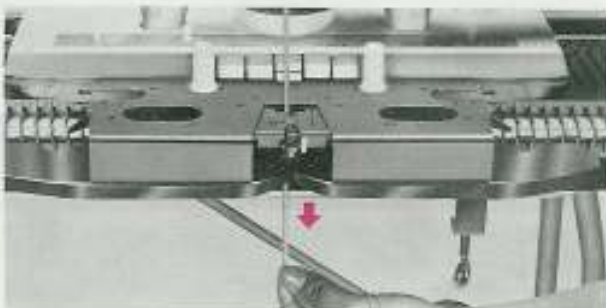
5) Thread the yarn into the Yarn Feeder.



6) Close the Yarn Feeder Lever.



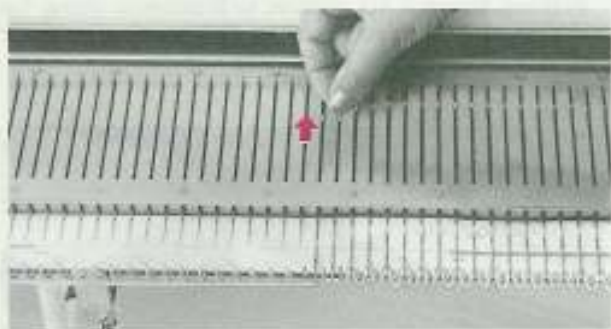
7) Hold the yarn end securely.



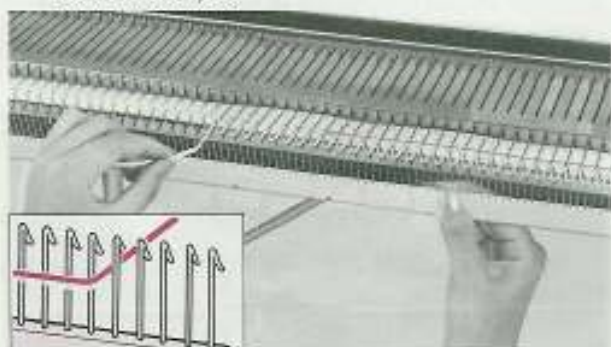
8) Move K-Carriage to left slowly. Once the needles catch the yarn you may release held yarn end.



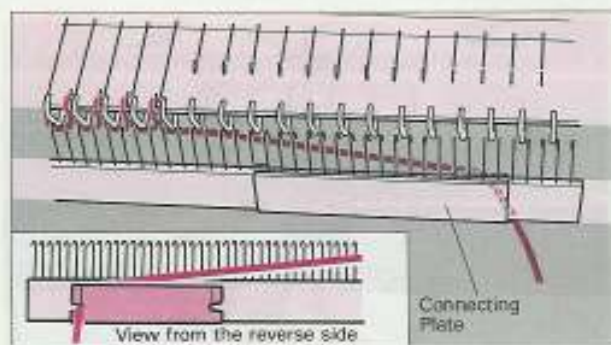
9) Adjust the end needle to B position.



11) Hang the Cast-on Comb the edges of the hooks facing the machine. Pull the yarn through the hook toward you.



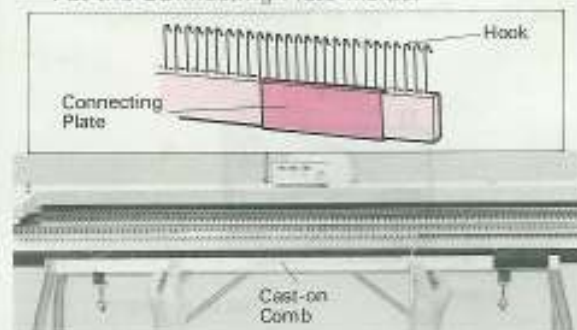
13) Slip the loose end in the Connecting Plate from the back.



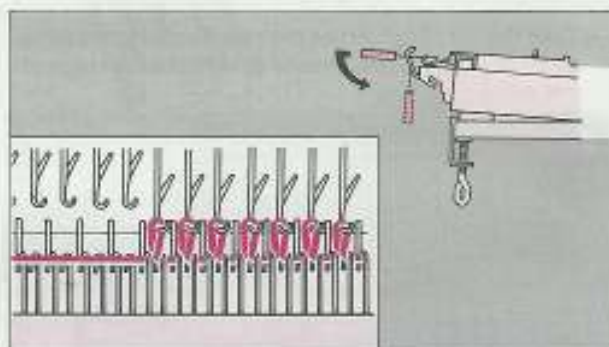
15) Move the carriage to the right holding the yarn as shown so no loops are formed.



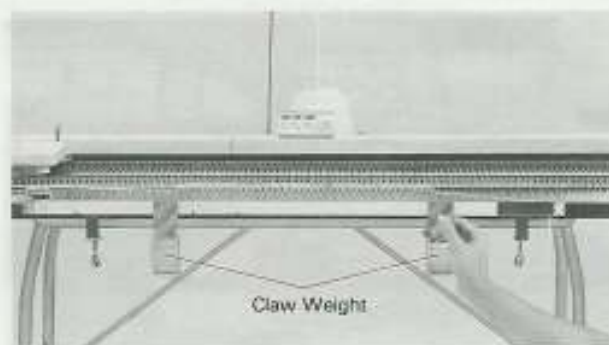
10) Take the Cast-on Comb out of the case and shorten it to 84 needles. Put the Connecting Plate inside.



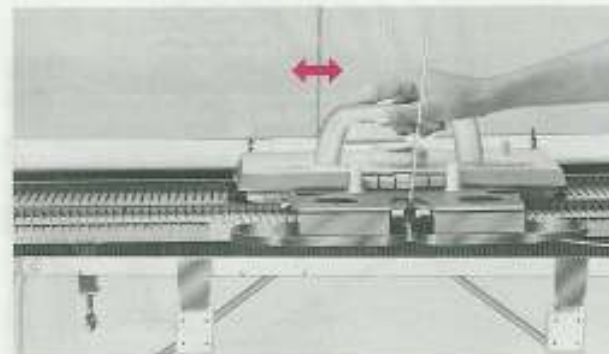
12) Hook the Cast-on Comb into position and pull down.



14) Keeping the comb horizontal, hang on claw Weights.

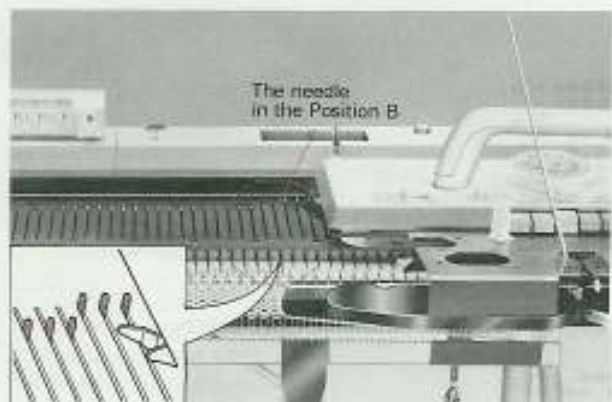


16) Move the K-Carriage to the left and then right. This is Stockig stitch.



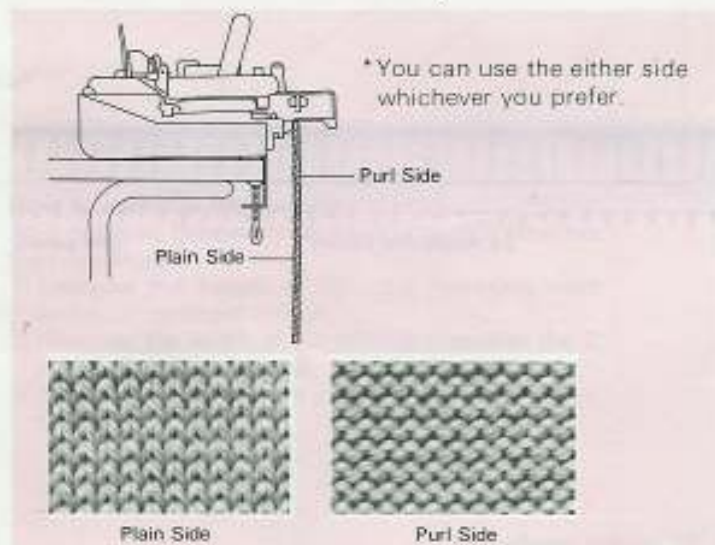
NOTE:

1) Ensure that the K-Carriage clears the knitting before you make the return, but not too far away!



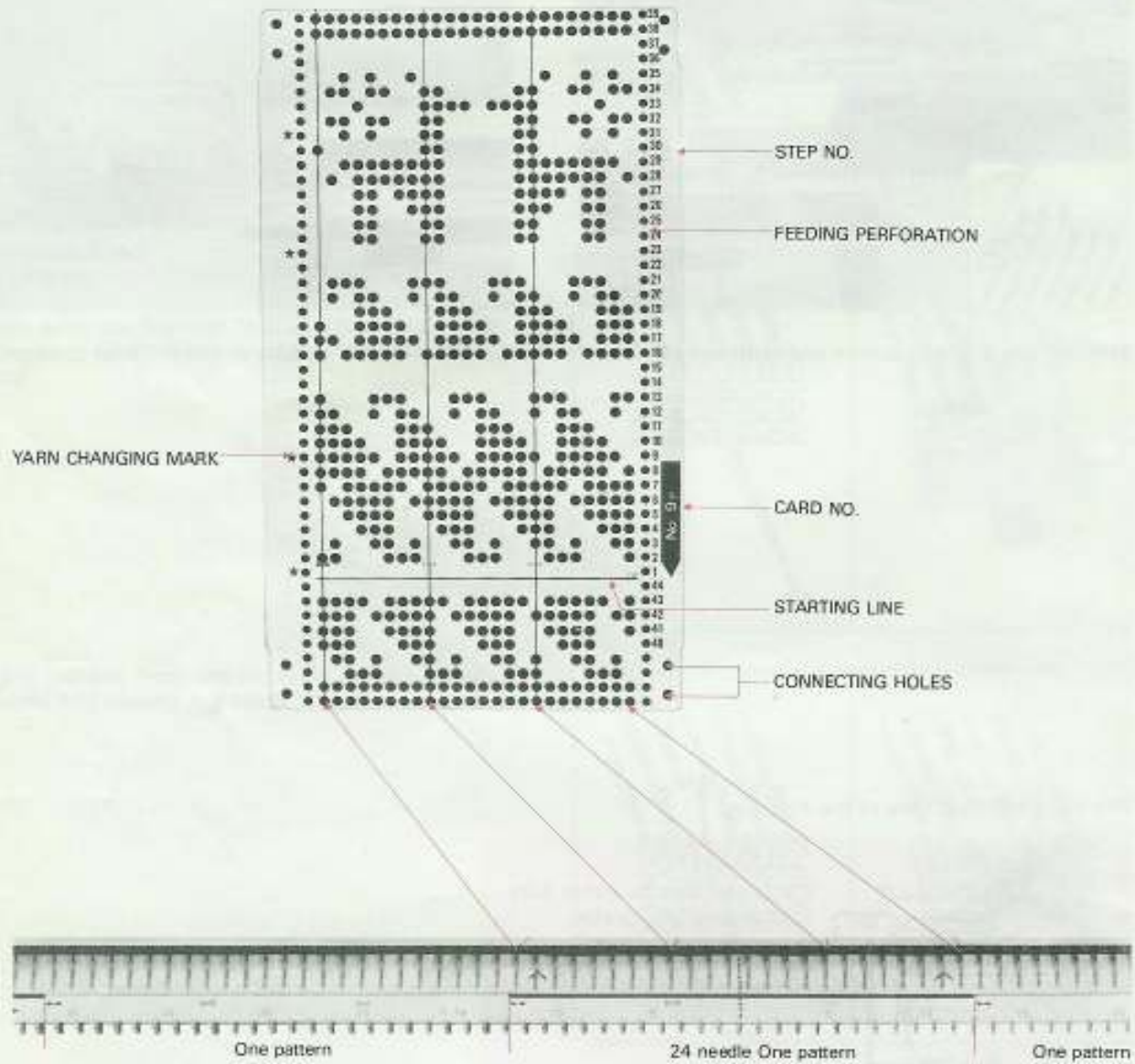
2) When you knit with cotton and synthetic yarn, set the Rubber Wheel to the working position. (Refer to page 22.)

The Plain and Purl Side of the Knitting.



5. PATTERN KNITTING

- * The punchcard produces various stitches automatically.
- * The needles that correspond to the perforations are selected to position D.
- * Do not fold the Punch Cards.



HOW TO USE THE LATCHET TOOL

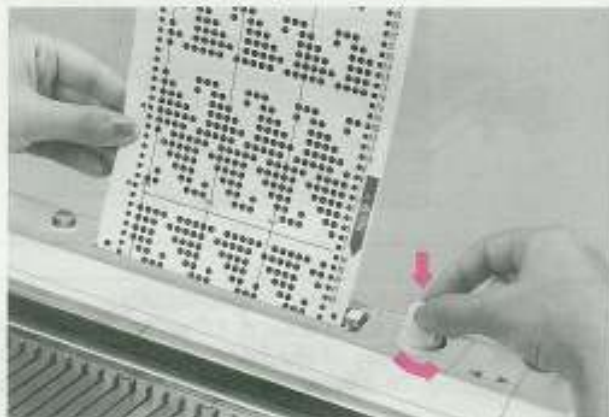
The machine has a 24 pattern repeat centred over "0" on the needle bed.

HOW TO SET THE PUNCH CARD

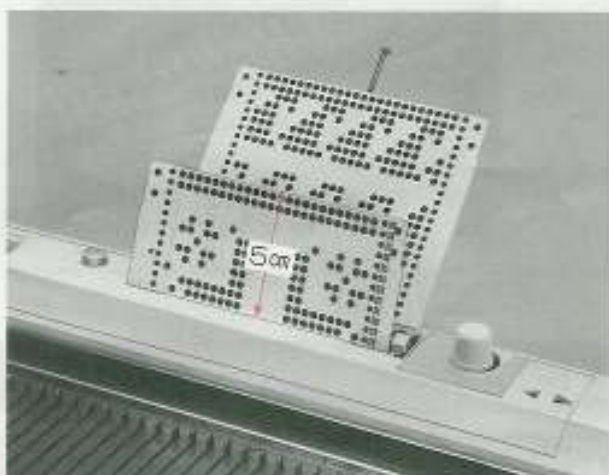
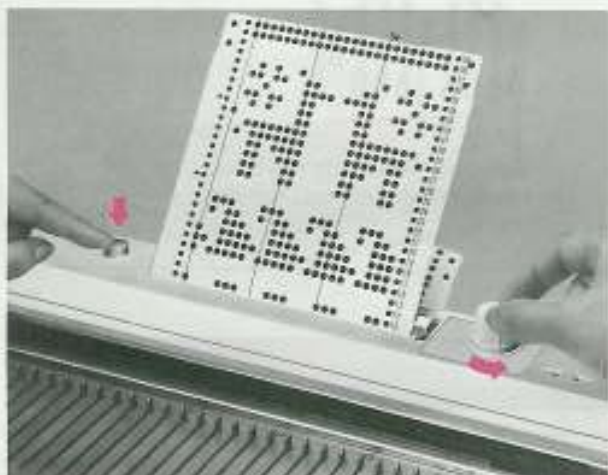
1) Insert the Punch Card Holder Pin in the hole behind the card opening.



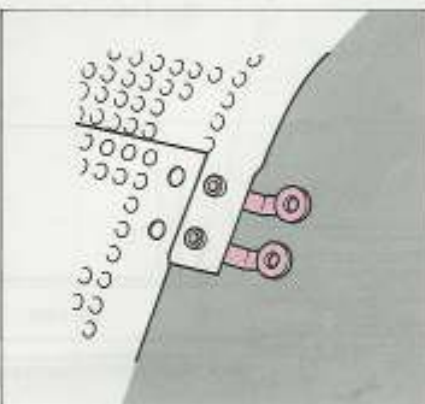
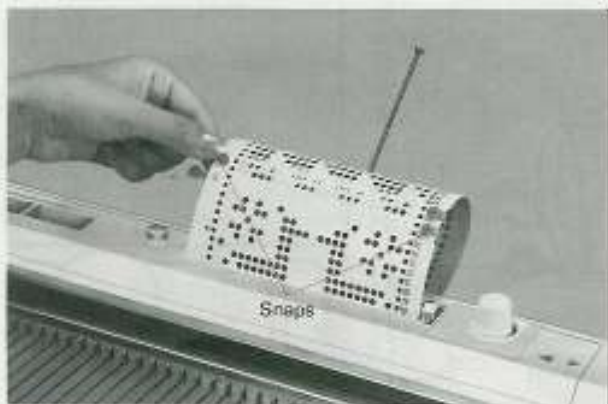
2) Insert the Punch Card straight into the opening with the number facing you. Make sure that the line is parallel to the panel by feeding it in several rows.



3) Turn the feeding knob pressing down the push button to feed the card.



4) Using the plastic snaps, join the card to allow it to rotate.



BASIC STEPS TO PATTERN KNITTING

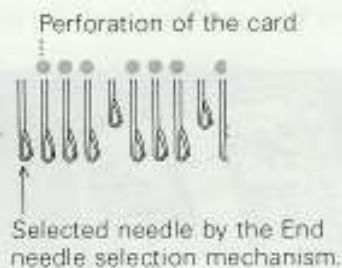
The first steps to all patterning are the same, so study these carefully.

* CARRIAGE DIRECTION INDICATOR shows the direction the carriage is moving.



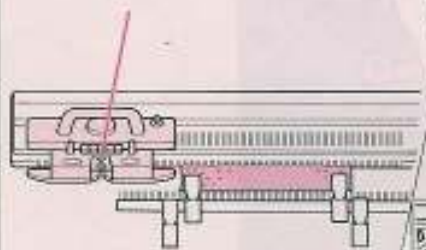
* END NEEDLE SELECTION MECHANISM

When the Change Knob is set to KC on the K-Carriage, both end needles in B position are selected to D position on each row, regardless of the Punch Card. This is called END NEEDLE SELECTION MECHANISM and the stitches from dropping. To cancel this mechanism, refer to page 42.

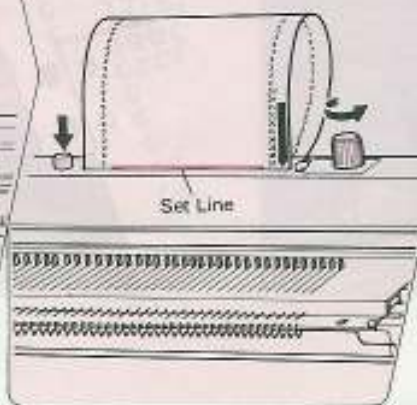


STEP 1

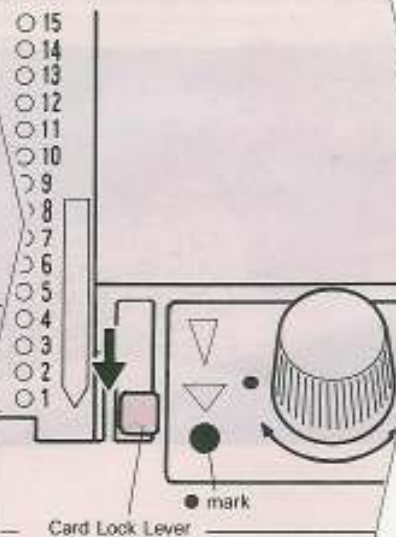
1) Cast on and knit a few rows in stocking stitch. Place K-Carriage at left. (except Double Length Pattern)



2) Insert card and lock on row 1. (Check that the card is suitable for the stitch wanted.) Rotate card to Set Line.



3) Set the Card Lock Lever to the "●" mark.

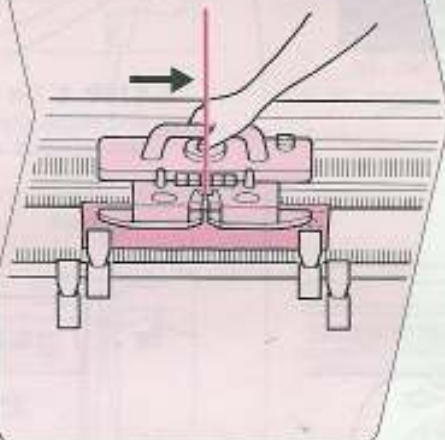


STEP 2

1) Set the Change Knob to "KC" (or SM) position.

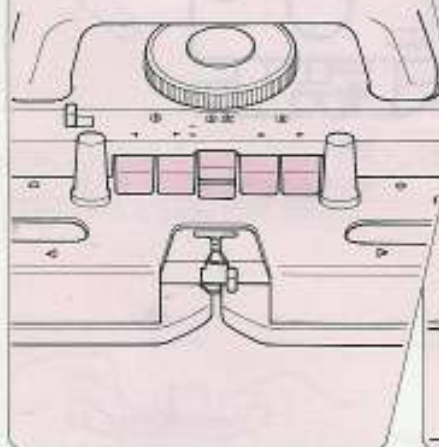


2) Move the K-Carriage slowly to the right (to the left in Double Length Pattern) and needles are selected to position D.



STEP 3

1) Push the proper Cam Buttons or set the Wheel Brushes according to your pattern.

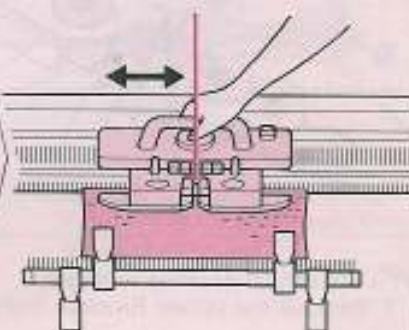


STEP 4

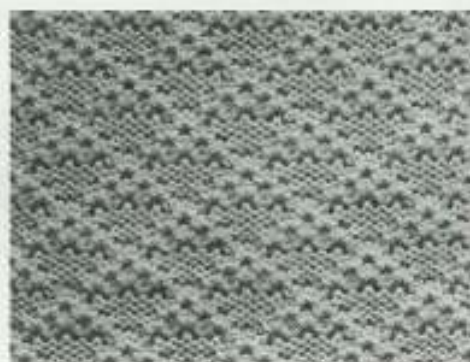
1) Set the Card Lock Lever to the "▼" or "▼" mark.



2) Begin knitting

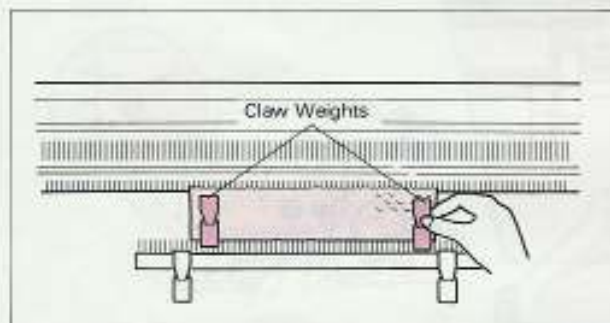


TUCK STITCH PATTERN (You can use the Card No. 1p, 2p, 3p, 4p, 5p, 7p, 8p)

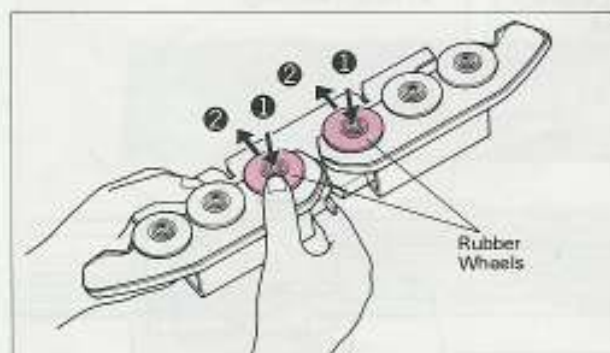


Card No. 3p

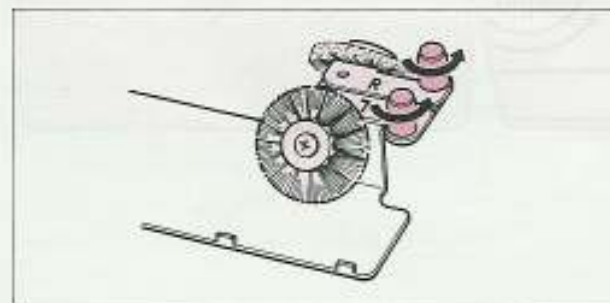
2) Hang the Claw Weights on both edges of the knitting.



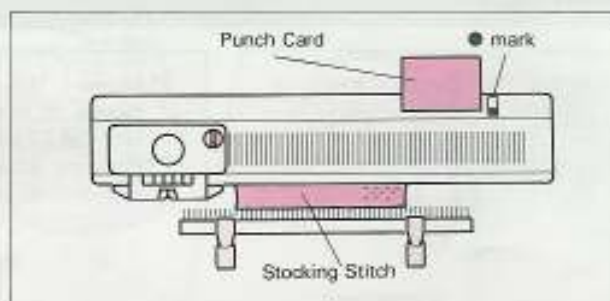
4) Remove the Sinker Plate Assembly from the K-Carriage and push and slide both Rubber Wheels and place them to the working position.



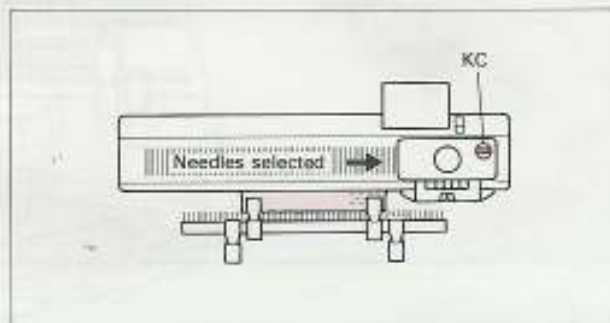
6) Fit the Wheel Brushes in place.
1. Remove the Wheel Brushes from the case.



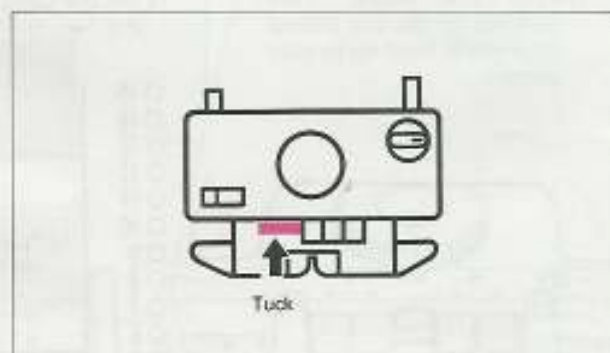
1) **STEP 1** After knitting several rows of Stocking Stitch, place the carriage at the left.
Set the Card and Card-Lock Lever at ● mark.



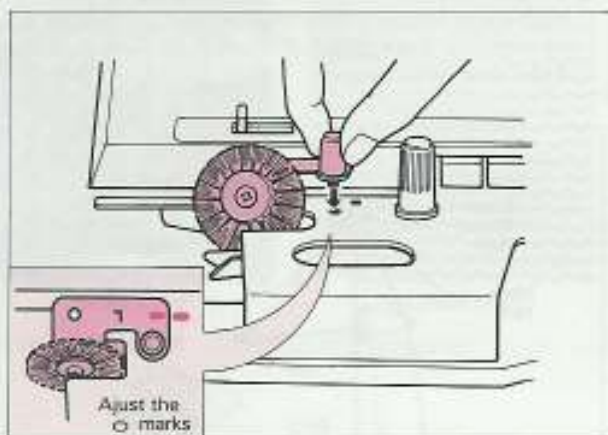
3) **STEP 2** Set the Change Knob to the KC position and move the K-Carriage from left to right. The needles are selected.



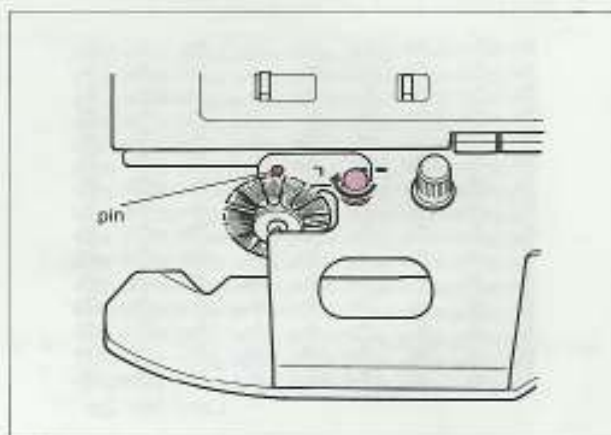
5) **STEP 3** Push both tuck buttons at the same time.



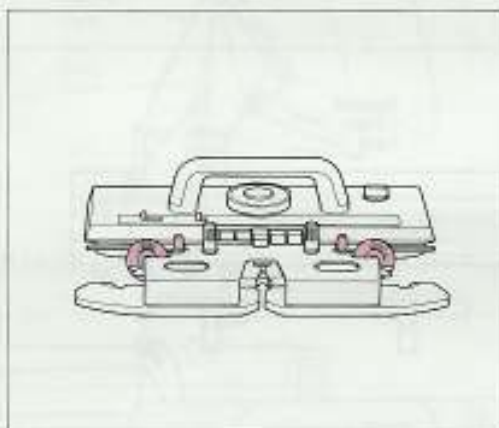
2. Put the Wheel Brush (L) into the U-shaped slot on left of the Sinkers Plate and insert the screw into hole on left of T mark.



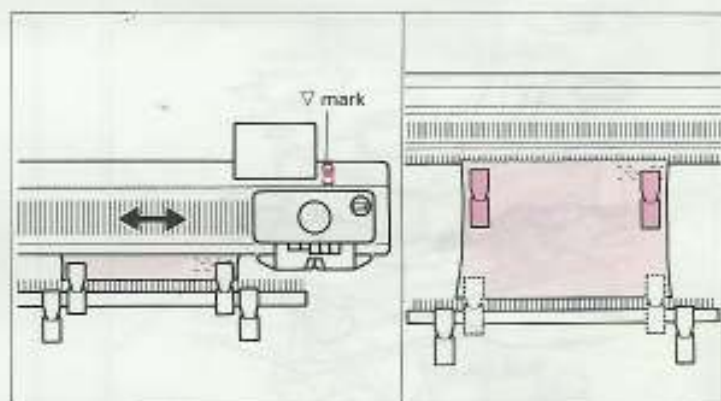
3. Locate the small pin on the Sinkers Plate into the hole of Wheel Brush, then tighten screw.



4. Fix the other brush on the right-hand side.



- 7) **STEP 4** Set the Card Lock Lever at ∇ mark. Then operate the K-Carnage and start knitting. Rehang the Claw Weights every few cms.

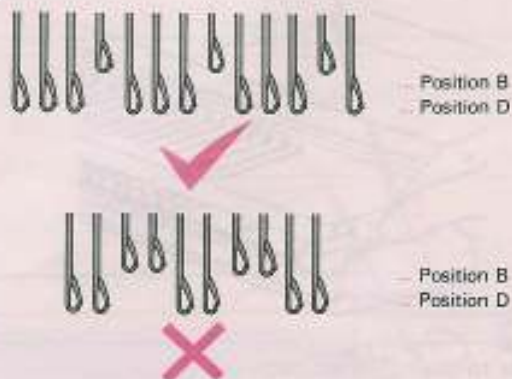


*** NOTE (IN TUCK AND TWO COLOUR TUCK STITCH PATTERN)**

After knitting the pattern....

- Remove the wheel brushes and put them back in the case.
- Set the Rubber Wheels to the normal position.

Make sure that **two needles** don't come side by side in B position.



Card No. 4p

More than three rows

Do not use thicker yarn when there are more than three rows of perforations continuously on the Punch Card.

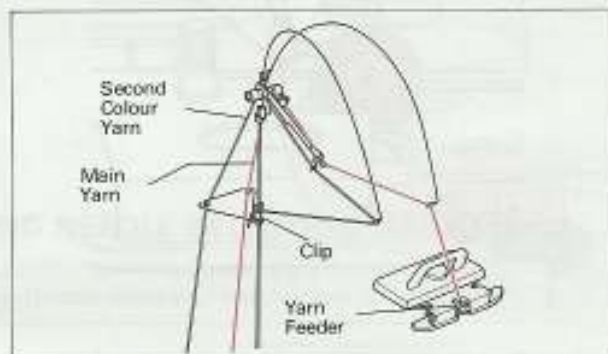
TWO COLOUR TUCK STITCH PATTERN

This is worked the same as Tuck Stitch Pattern, except the yarn is changed every two rows. (In case of Card No. 4p, change the yarn at ★ mark.)

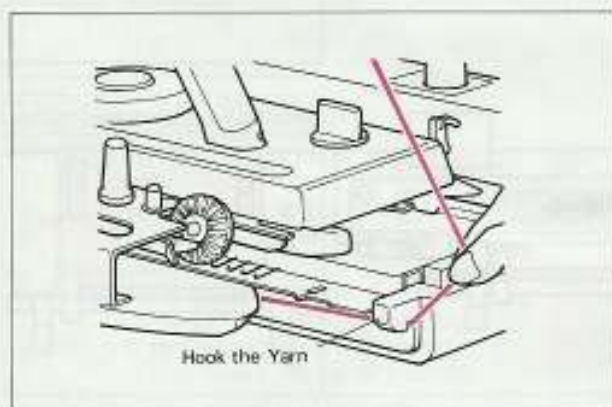


Card No. 2p

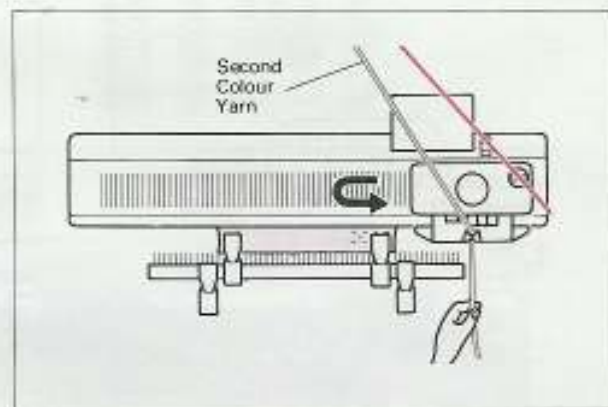
- 1) Thread the Yarn Tension Unit as shown in the figure and follow the same procedure as explained in 1 ~ 7 in Tuck Stitch Pattern. Then knit two rows.



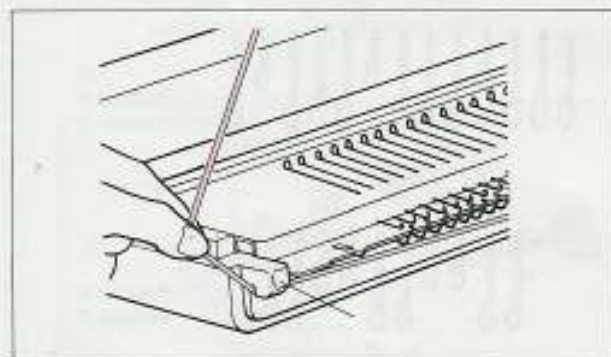
- 2) Take the main yarn out of the Yarn Feeder and hook it at the edge of the machine to hold it.



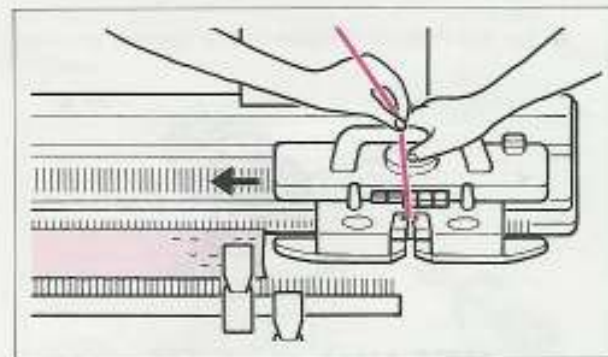
- 3) Then thread the second colour yarn and knit two rows:



- 4) Take the Second Colour Yarn out of the Yarn Feeder and hook it at the edge of the machine.



- 5) Change the yarn in the Yarn Feeder at every two rows.



* Refer to the NOTE on page 23.

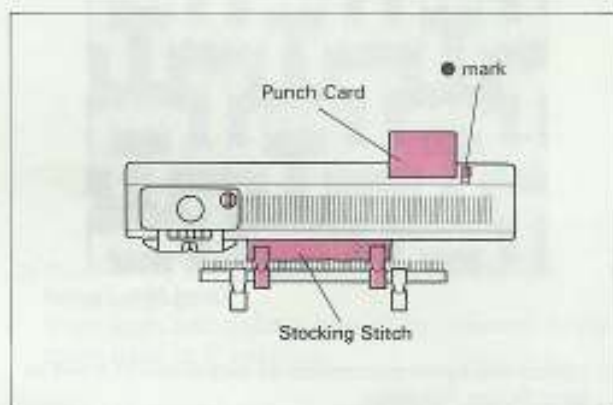
- * Move the carriage to the right with pulling the yarn rightly not to make any slack.
- * Rehang the Claw Weights.

SKIP STITCH PATTERN (You can use the Card No. 1p, 2p, 3p, 4p, 5p, 6p, 7p, 8p)

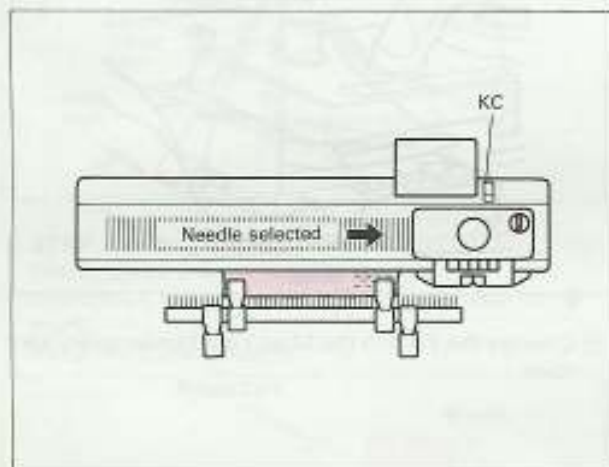
- 1) **STEP 1** After knitting several rows of Stocking Stitch, place the carriage at the left. Set the Punch Card and the Card Lock Lever at ● mark. Hang the Claw Weights.



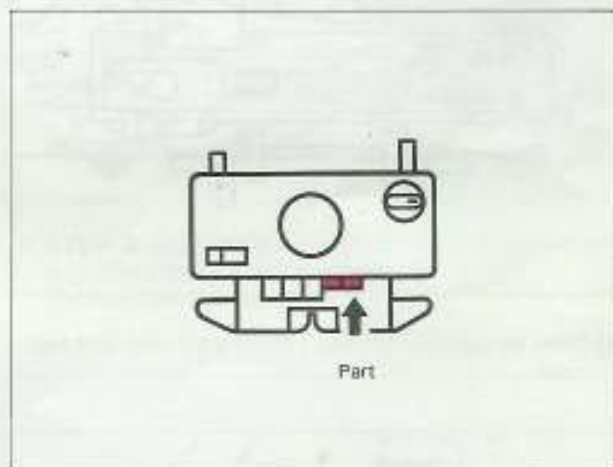
Card No. 6p



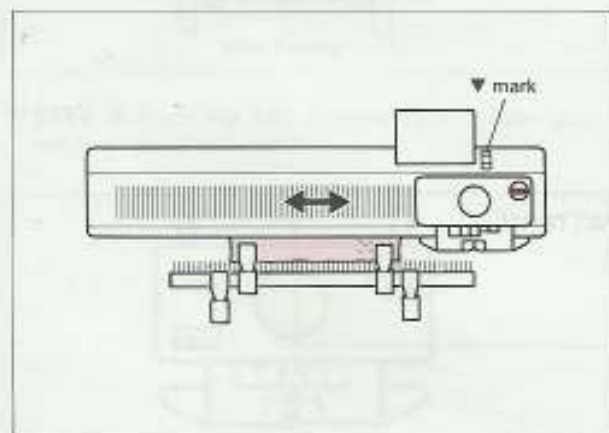
- 2) **STEP 2** Set the Change Knob to the KC position. Then move the carriage to the right. The needles are selected.



- 3) **STEP 3** Push both Part buttons at the same time.



- 4) **STEP 4** Set the Card Lock Lever at ▼ mark. Then operate the K-Carriage and start knitting. Rehang the Claw Weights after knitting every 5 cms or so.



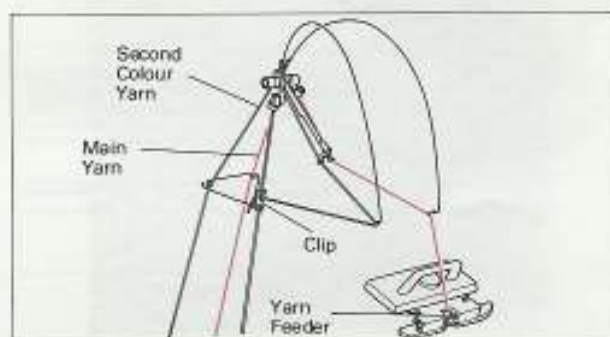
TWO COLOUR SKIP STITCH PATTERN

This pattern is the same as Skip Stitch except the yarn is changed every two rows.

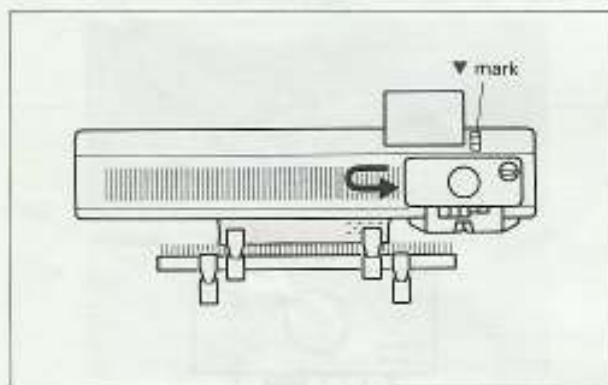


Card No. 3p

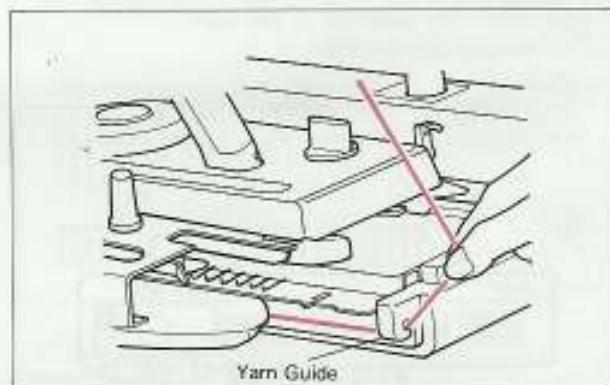
- 1) Thread the Yarn Tension Unit as shown in the figure.



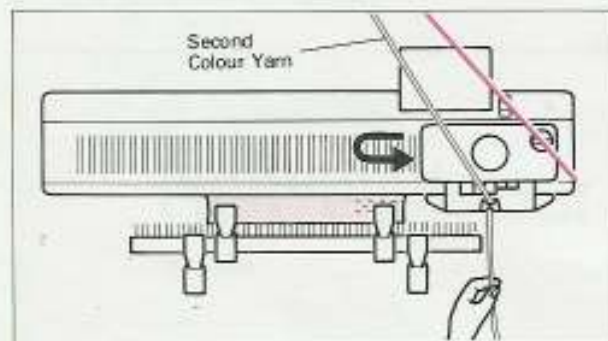
- 2) Follow the same procedure as explained in 1~4 in Skip Stitch Pattern.
Then knit two rows.



- 3) Take the main yarn out of the Yarn Feeder and hook it at the edge of the machine to hold it.



- 4) Then thread the second colour yarn and knit two rows.



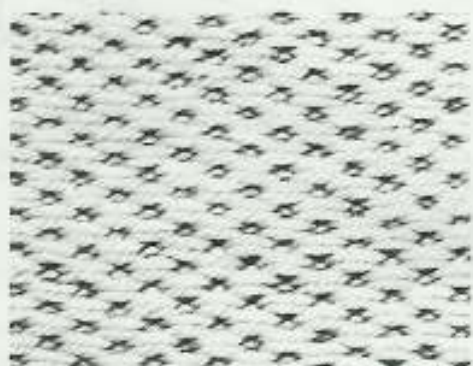
- 5) Change the Yarn in the Main Yarn Feeder every two rows.

NOTE

... IN TWO COLOUR TUCK/SKIP STITCH PATTERN ...

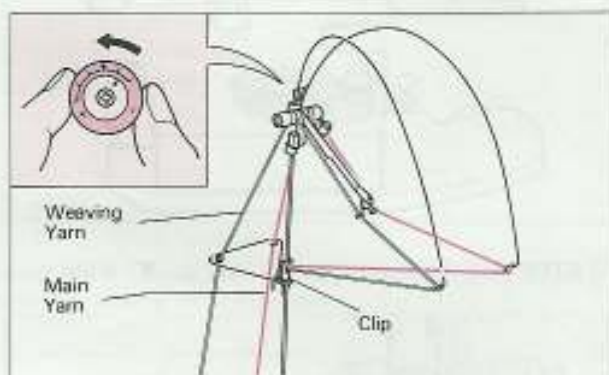
Make sure that the two yarns do not cross!!

WEAVING PATTERN (You can use the Card No. 1p, 2p)

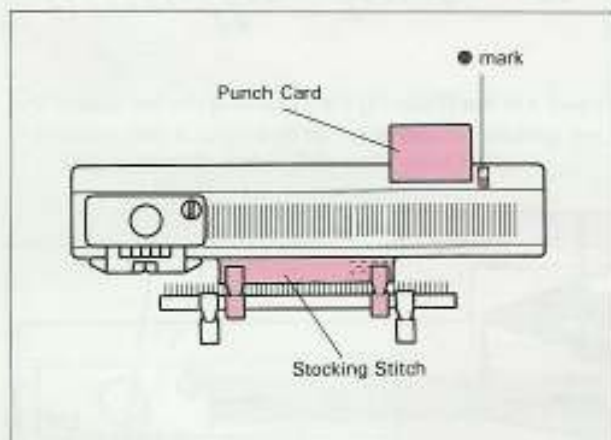


Card No. 2p

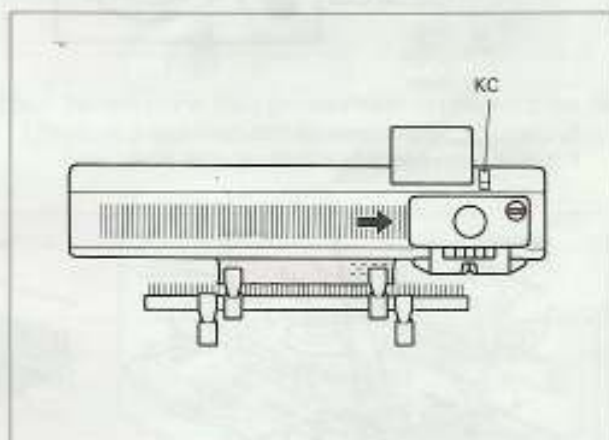
- 1) Thread the Yarn Tension Unit as shown in the figure. Adjust the Discs according to the thickness of the weaving yarn.
(Refer to page 14.)



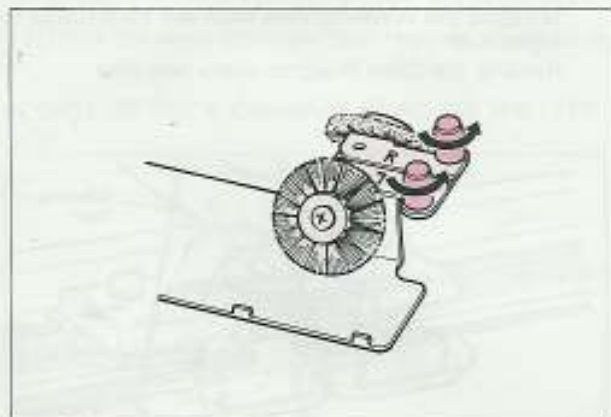
- 2) **STEP 1** After knitting several rows of Stocking Stitch and place the K-Carriage on the left side of the machine. Set the Punch Card and the Card Lock Lever at "●" mark. Hang the Claw Weights.



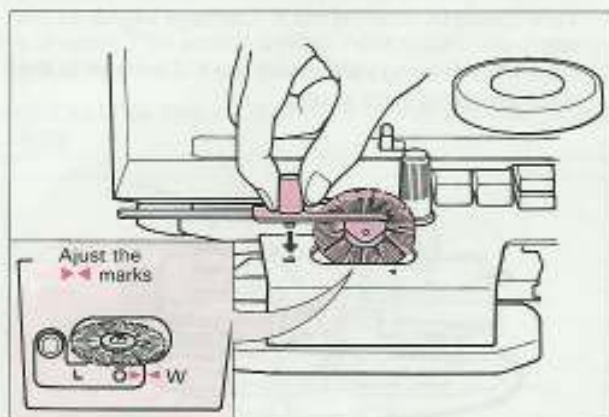
- 3) **STEP 2** Set the Change Knob to the KC position and move the K-Carriage from left to right. The needles are selected.



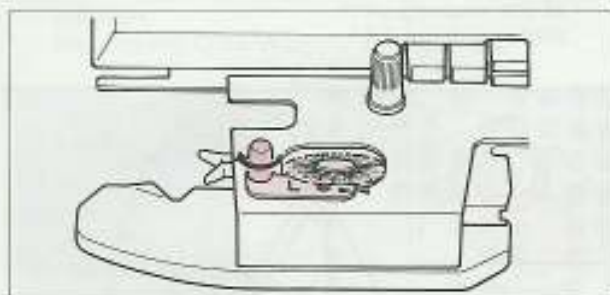
- 4) **STEP 3** Set the Wheel Brushes.
1. Remove the Wheel Brushes from the case.



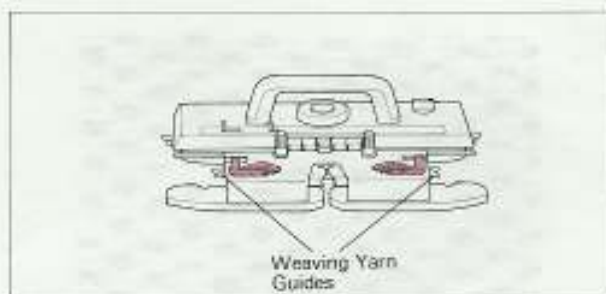
2. Put the Wheel Brush (L) into the left oval opening in the Sinker Plate and insert the screw.



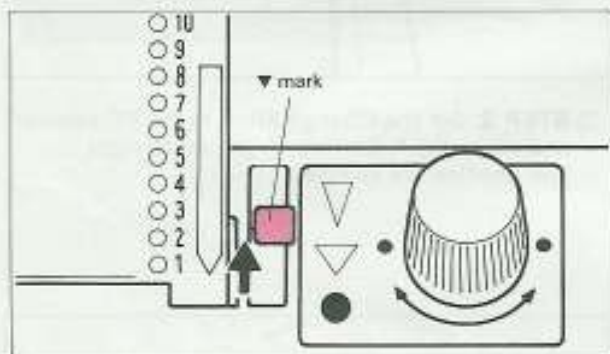
3. Locate the Pin on the Sinker Plate into the hole of the Wheel Brush, and tighten screw.



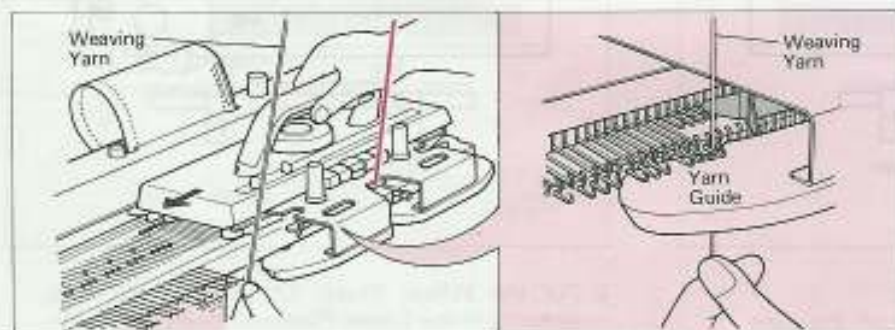
4. Fit the second brush on right.



5) **STEP 4** Set the Card Lock Lever at ▼ mark.

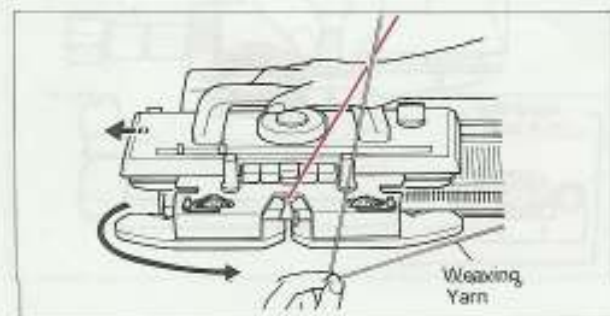


6) Hold the end of the Weaving yarn with your left hand and thread it in the Weaving Yarn Guide at the left side of the K-Carriage. Then operate the carriage. Release yarn end after knitting one row.



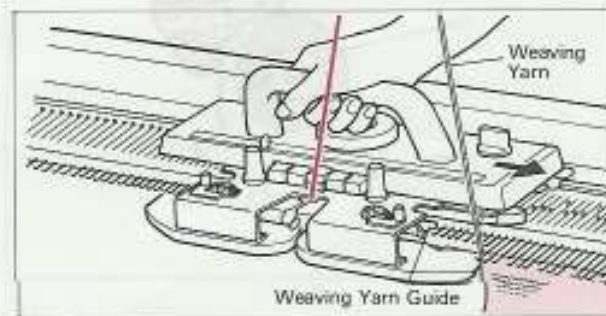
7) Remove the Weaving yarn from the left Weaving Yarn Guide by moving the K-Carriage slightly to the left.

Pass the Weaving yarn under the K-Carriage to the right Weaving Yarn Guide.

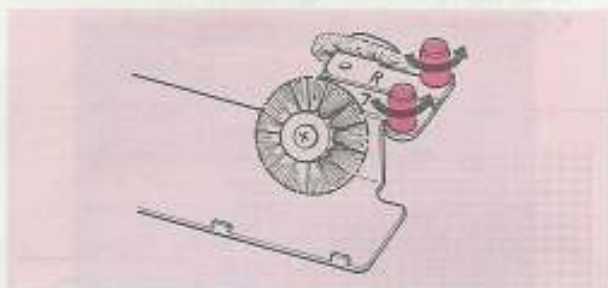


8) Move the K-Carriage to the right. Continue to knit bringing the Weaving yarn from left Yarn Guide to right.

Rehang the Claw Weights every few cms.



AFTER KNITTING WEAVING PATTERN ...
Remove the Wheel Brushes, and replace into case.



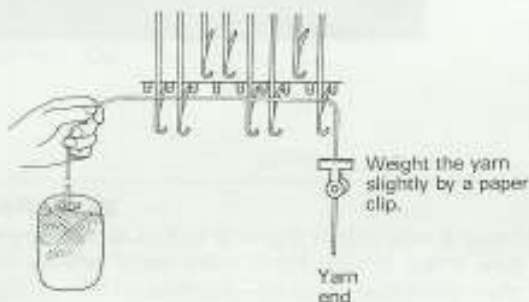
NOTE

IN CASE OF USING MORE THAN TWO WEAVING YARNS ...
There is a second method to weave. Lay the Weaving yarn across selected needles from the carriage's side as shown in the figure.
Then operate the K-Carriage.

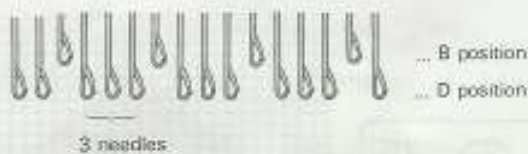
Hold the yarn lightly.



Moving direction of the K-Carriage



Three Needles side by side are the limit for a successful stitch when weaving.



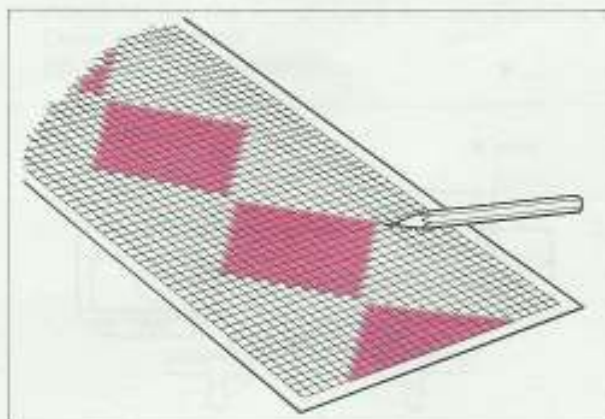
WEAVING MOTIF PATTERN

(Manual Operation)

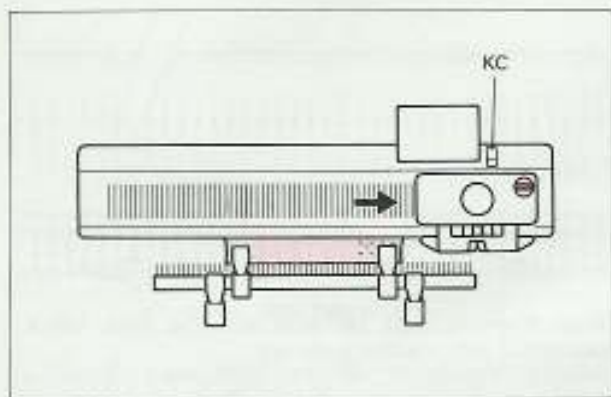


Card No. 1p

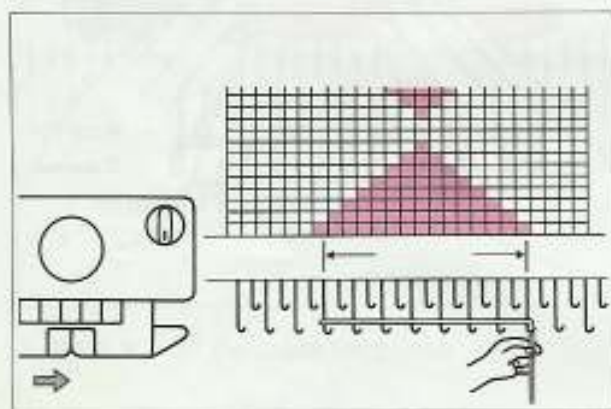
- 1) Draw a diagram before you knit. Otherwise, use the Knit-leader.



2) Follow the same procedure as explained in Weaving Pattern. (No. 1 ~ 5)

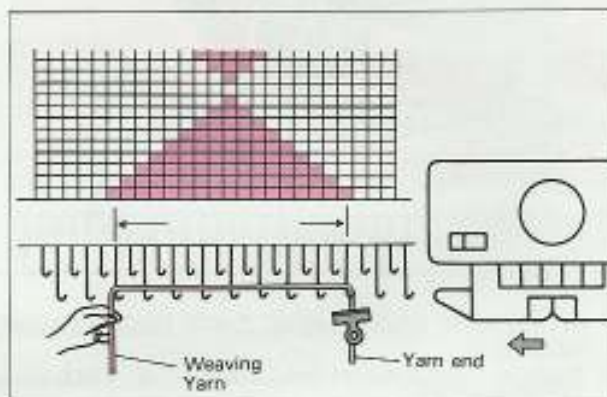


4) Lay the Weaving yarn according to the diagram of the next row.



* Remember to set back the Wheel Brush into the case.

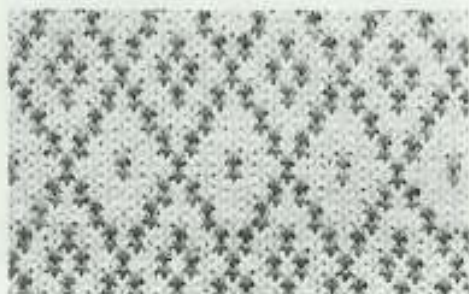
3) The Weaving Yarn should be laid in the opposite direction to where the K-Carriage is resting. (Refer to the **NOTE** in Weaving Pattern.) Then operate the K-Carriage.



5) Continue to knit referring to the diagram. Rehang the Claw Weights

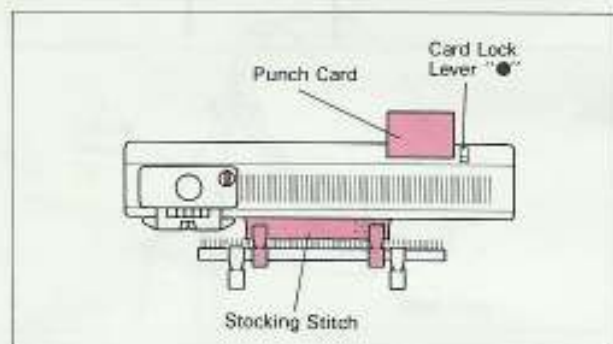
FAIRISLE PATTERN (You can use the Card No. 1p, 2p, 6p, 7p, 8p, 9p, 10p, 11p, 12p, 15p)

You can knit two different colours in one row in Fairisle Pattern.

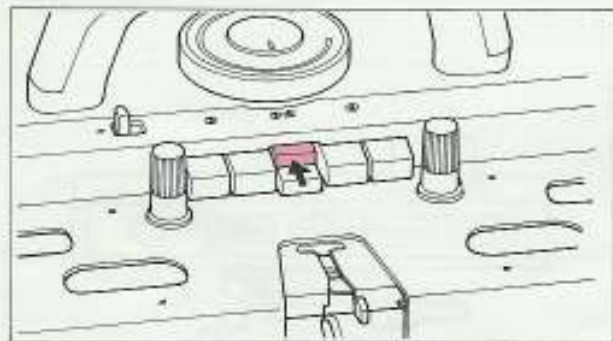


Card No. 7p

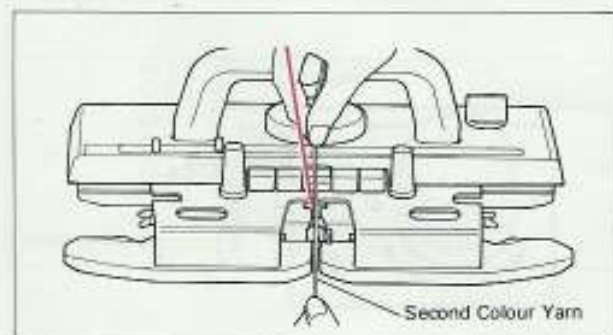
- 2) **STEP 1** Knit several rows of Stocking Stitch ending with K-Carriage on the left side of the work. Insert the Punch Card and set the Card Lock Lever at ● mark.



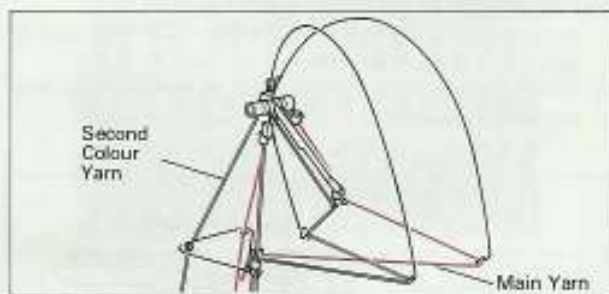
- 4) **STEP 3** Push the upper MC button.



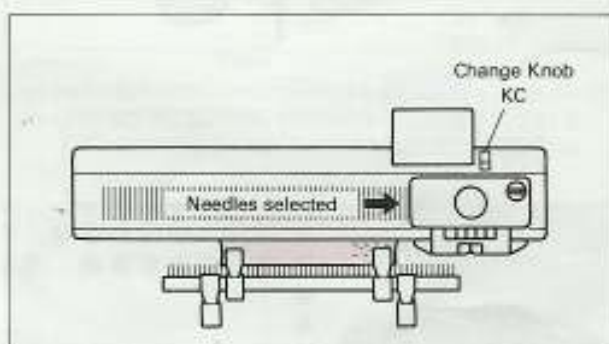
- 6) Thread the second colour yarn into the Yarn Feeder B without opening the Yarn Feeder Lever.



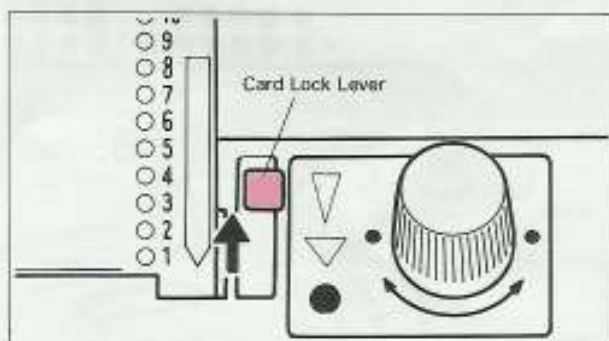
- 1) Thread and clip the yarn as shown in the figure.



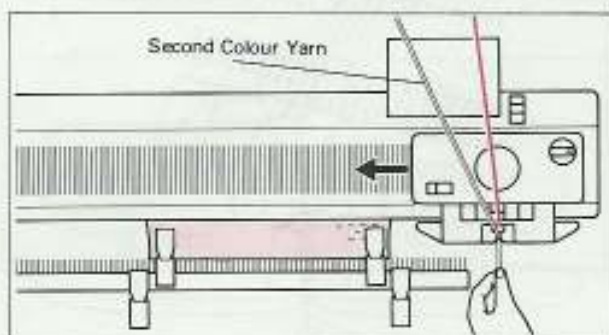
- 3) **STEP 2** Set the Change Knob to the KC position and move the K-Carriage from left to right. The needles are selected.



- 5) **STEP 4** Set the Card Lock Lever at the ▼ mark.

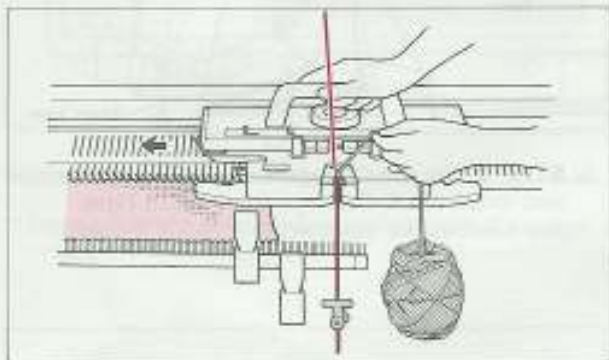


- 7) Operate the K-Carriage whilst holding the yarn end with your left hand.

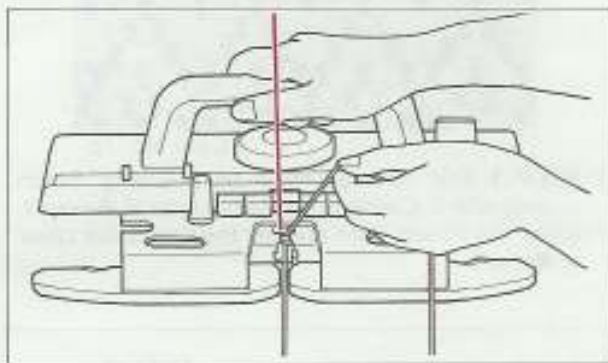


WHEN USING MORE THAN THREE COLOURS OF YARN

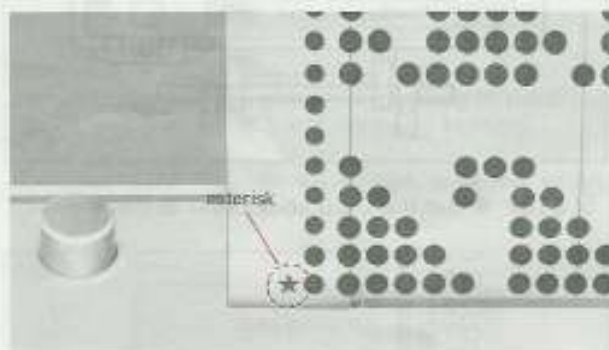
- 1) Thread the main colour yarn at the right side of the Yarn Tension Unit.
- 2) Place the second colour yarn at your feet.
(It is better to thread it in the Yarn Tension Unit if you have a number of rows to knit.)
- 3) Hang the weight (like a clip) at the end of the second yarn.



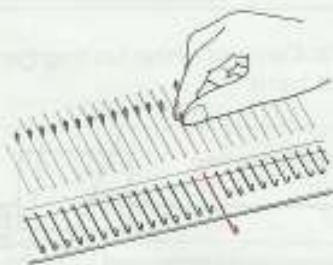
- 4) Operate the K-Carriage while holding the yarn end with your left hand.



- 5) Change the second colour yarn in the Yarn Feeder B to the third one when the asterisk on the left side of the Punch Card comes to the set line.

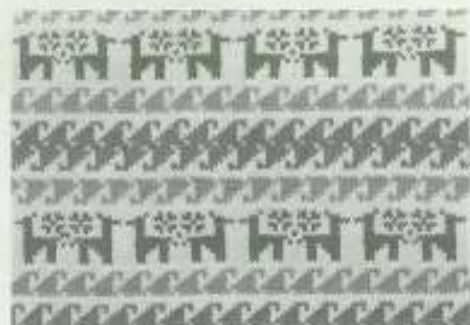


NOTE



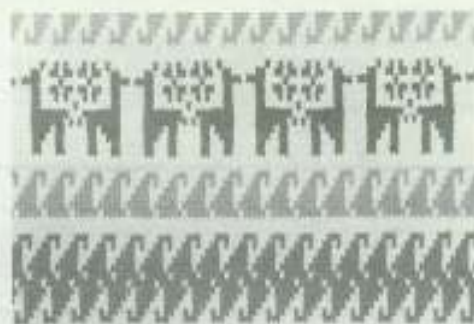
Sometimes more than 1 end needles is selected to D position. In this case, bring the needles back to B position by hand.

DOUBLE LENGTH PATTERN



Normal Pattern

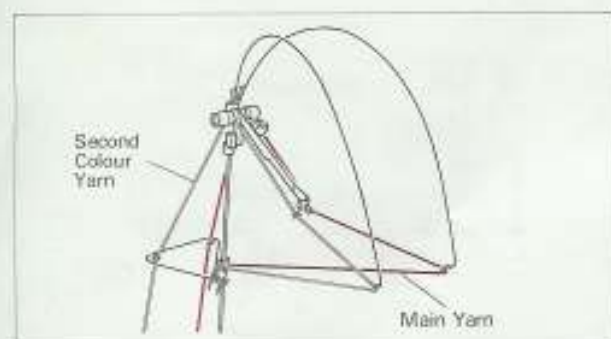
Card No. 9p



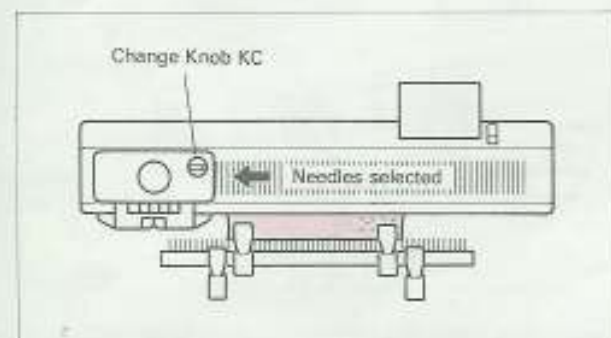
Double Length Pattern

Card No. 9p

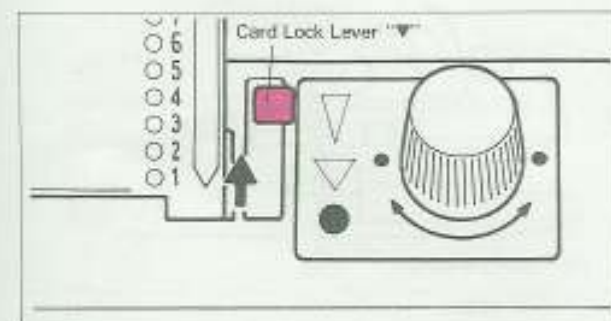
1) Thread the Yarn Tension Unit as shown in the figure.



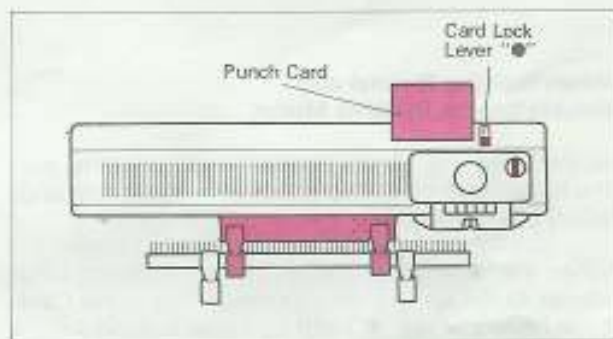
3) **STEP 2** Set the Change Knob to the KC position and move the K-Carriage from right to left. The needles are selected.



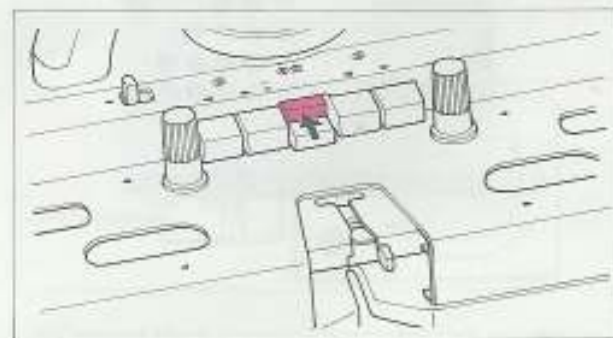
5) **STEP 4** Set the Card Lock Lever at the ▽ mark.



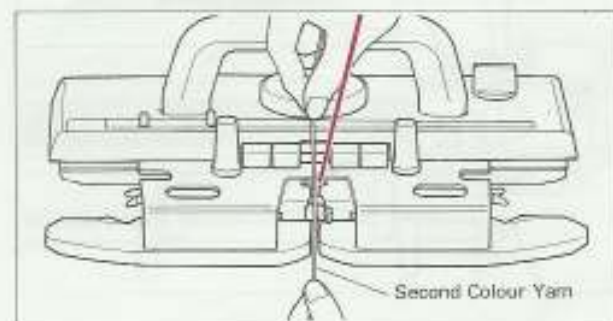
2) **STEP 1** Knit several rows of stocking stitch ending with K-Carriage on the right side of the machine. Set the Punch Card and the Card Lock Lever at ● mark.



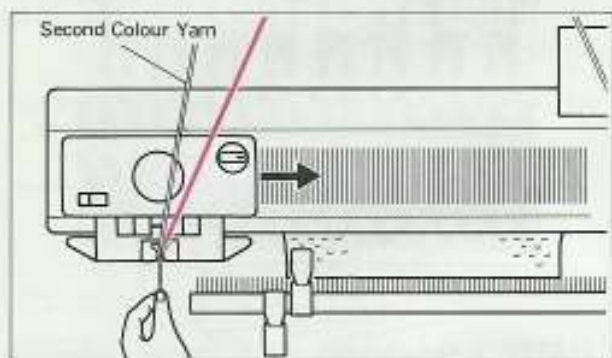
4) **STEP 3** Push the upper MC button.



6) Thread the second colour yarn into the Yarn Feeder B.



- 7) Operate the K-Carriage whilst holding the yarn end with your left hand.
Rehang the Claw Weights every few cms.



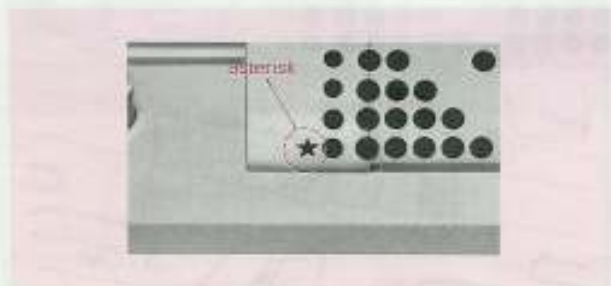
* The punchcard is rotated only when the K-Carriage moves from left to right.

When Knitting Normal and Double Length Patterns Mixed.

In the same way as the Double length patterns, put the K-Carriage on the right side of the machine and select the needles.

When the "*" mark on the left side of the punch card comes to the set line, change the setting of the Card Lock Lever ("∇" or "▼") and continue knitting.

Always ensure that the K-Carriage is at left when changing Card Lock Lever.



FAIRISLE MOTIF PATTERN



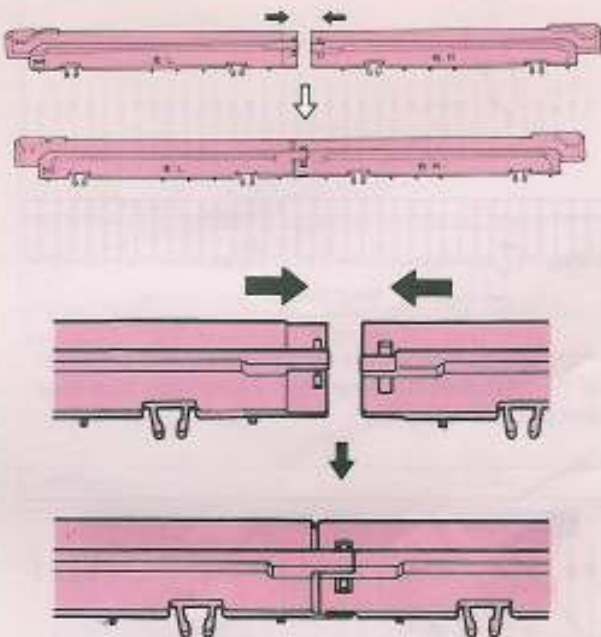
Card No. 10p

CONNECT THE MOTIF KNITTING CAMS (L) & (R)

Join the each end of the cams and push until you hear "click".

To disconnect, pull both cams out.

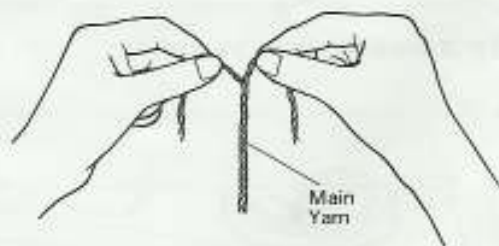
Motif Knitting Cams cannot be used individually.



PREPARATION

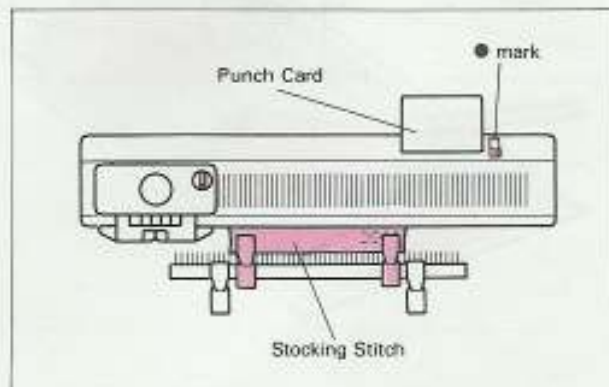
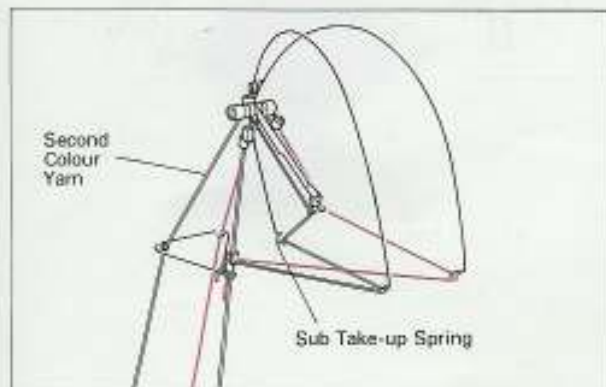
Before you begin to knit a single motif, take a small amount of the main yarn (background yarn) and separate it—to see illustration—to make two small balls of yarn.


If you have a much finer yarn in the same colour it is possible to use this.

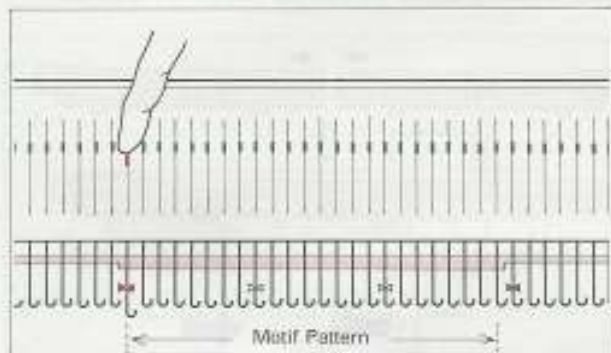


1) Thread the Yarn Tension Unit as shown in the illustration. Thread the second colour yarn through the Sub Take-up Spring.

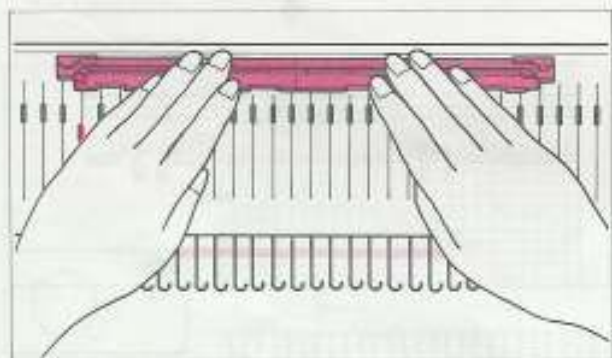
2) **STEP 1** Knit several rows of Plain Knitting and place the K-Carriage on the left side of the machine. Set the Punch Card and the Card Lock Lever at "●" mark. Hang the Claw Weights.



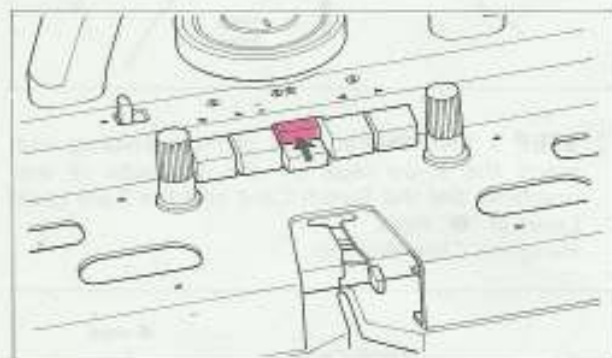
3) Place the Motif Cams beginning with the needle marked .




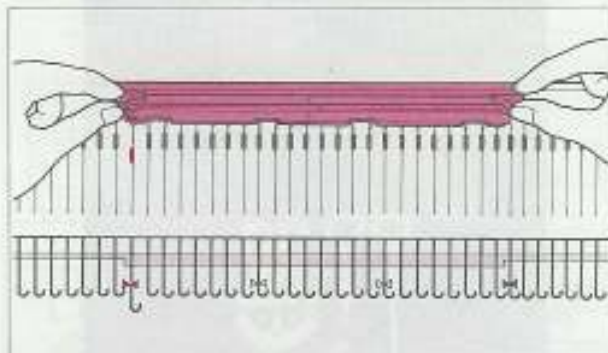
5) Push the cams back as far as they go and set them in parallel with the Rear Rail. Make sure that they are put in correctly.



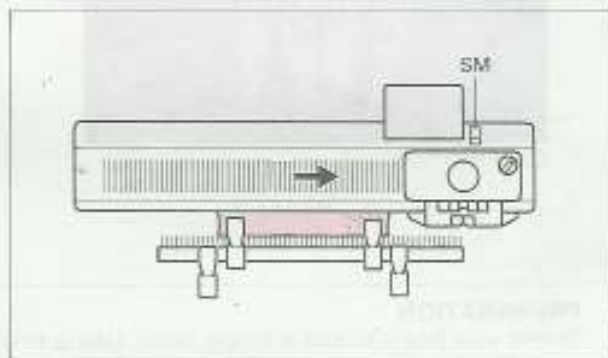
7) **STEP 3** Push the upper MC button.



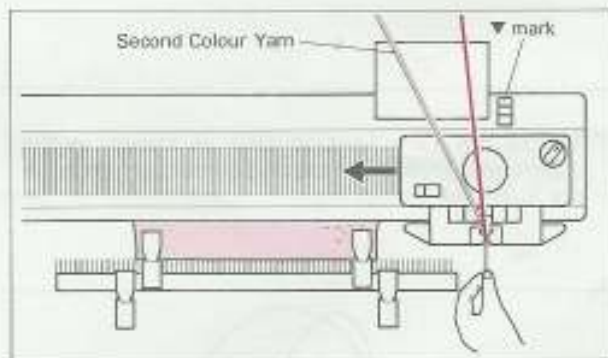
4) Place the Motif Knitting Cams on the needle bed by matching the  mark on the Rear Rail and the cams.



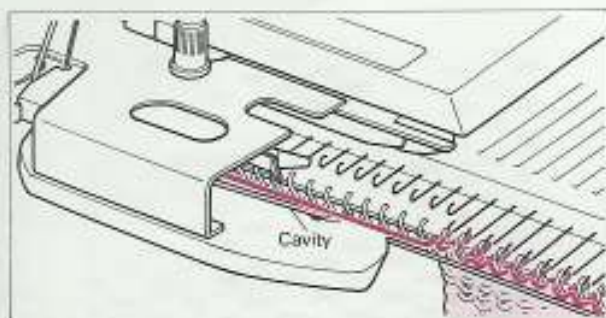
6) **STEP 2** Set the Change Knob to the SM position and move the K-Carriage from left to right. The needles are selected.



8) **STEP 4** Set the Card Lock Lever at the ▼ mark. Thread the second yarn into the Yarn Feeder B and operate K-Carriage whilst holding the yarn end lightly.

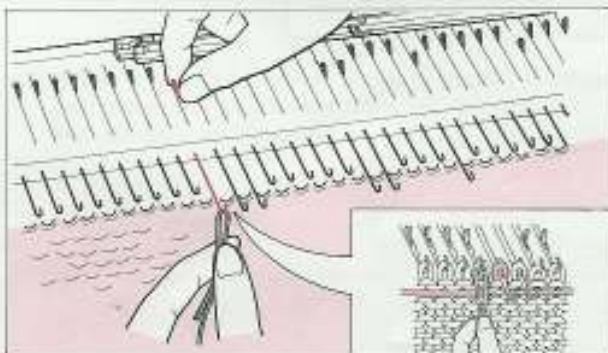


9) Make sure the second colour yarn comes under the cavity of the Sinkers Plate.



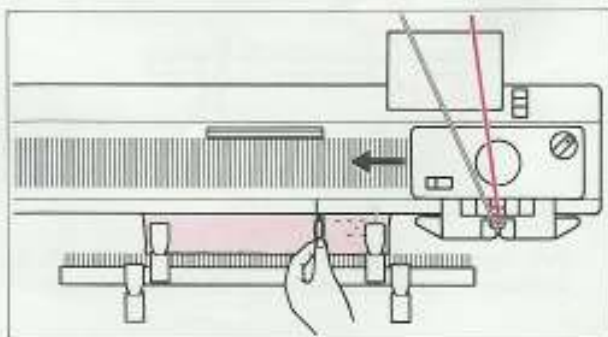
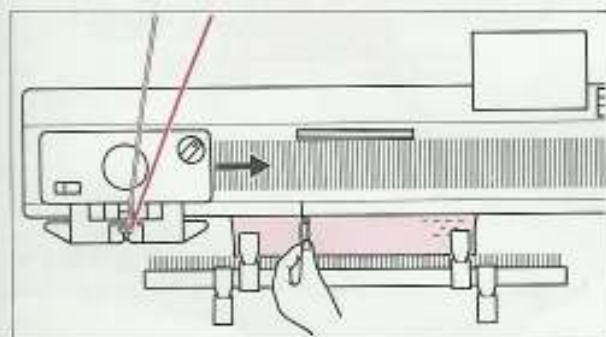
* Pull the yarn up slightly if there is any slackness.

10) Bring the adjacent needle to those selected for the motif on the K-Carriage's side, forward to D position and place separate single strand yarn into the hook. Then push the needle to D position.



11) Move the K-Carriage to right whilst holding the single strand yarn lightly with your hand.

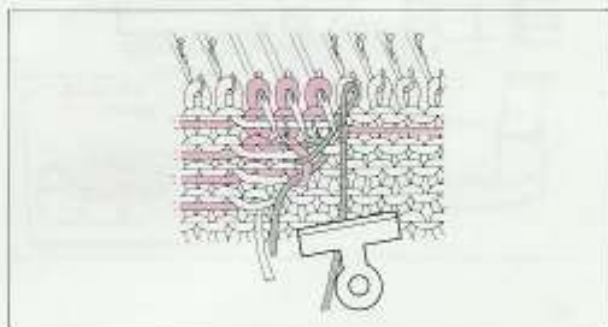
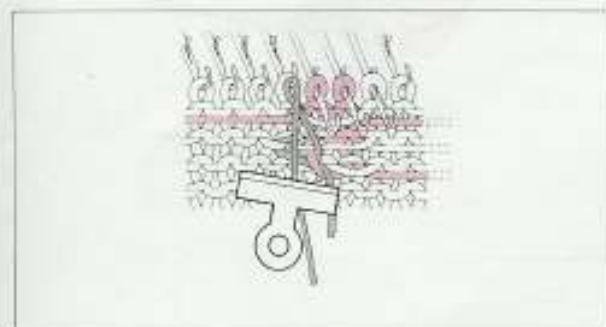
12) Work a second yarn in the same way as the other side, then operate the K-Carriage.



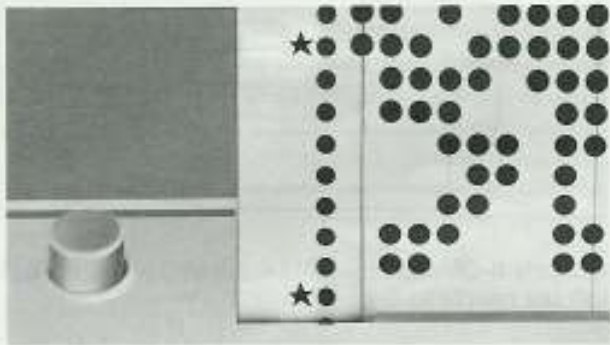
13) Hook the separated yarn every row as above on both sides of work. This avoids a small hole appearing in work.

IN CASE OF THE K-CARRIAGE BEING ON THE LEFT SIDE

IN CASE OF THE K-CARRIAGE BEING ON THE RIGHT SIDE



14) Change the second colour yarn in Yarn Feeder B to the third one when the asterisk to the lefthand side of the Punch Card comes to the set line position. Rehang the Claw Weights as necessary.



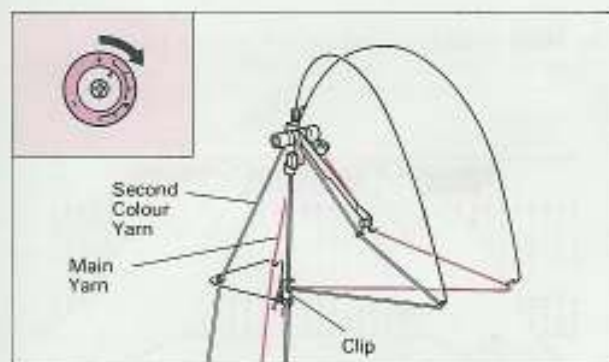
THREAD LACE PATTERN (You can use the Card No. 1p, 11p, 12p, 13p, 14p, 15p)



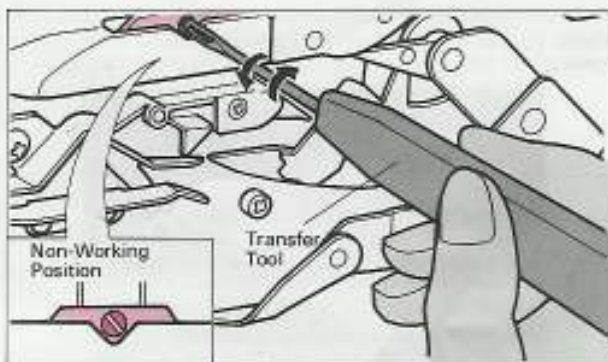
Card No. 15p

* This pattern is obtained by using a combination of thick yarn and a very fine yarn.

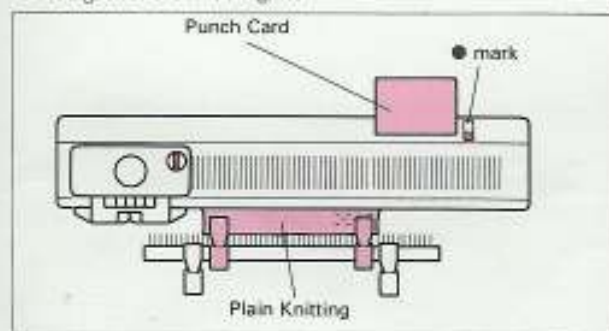
- 1) Thread the Yarn Tension Unit as shown in the figure.
Adjust the Discs for using very fine yarn.



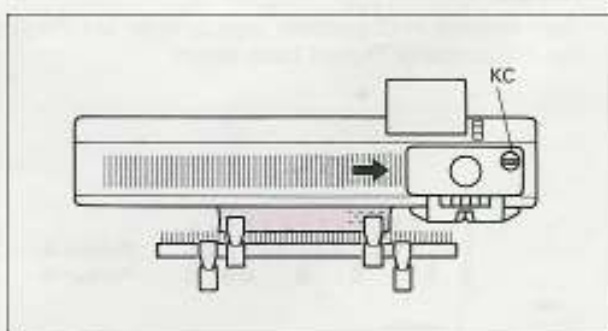
- 2) Release the end needle selection mechanism.
Refer to page 42.
If the both end needles should be selected, bring them back to B position.



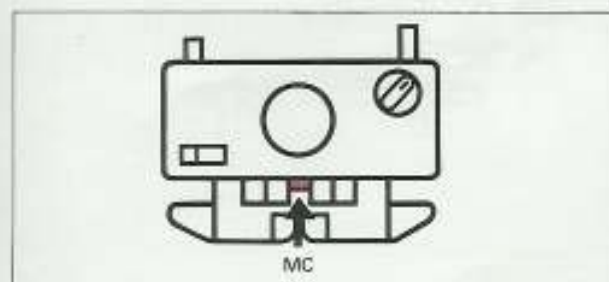
- 3) **STEP 1** After knitting several rows of Stocking Stitch, place the carriage at the left.
Insert the Card and set the Card Lock Lever at "●" mark.
Hang the Claw Weights.



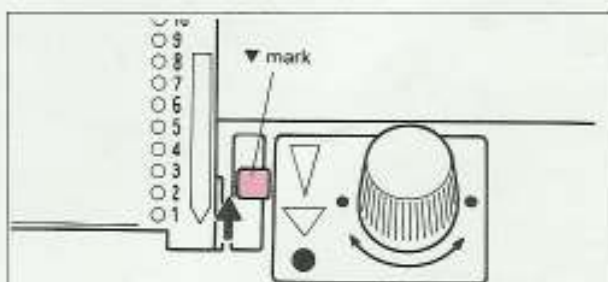
- 4) **STEP 2** Set the Change Knob to the KC position and move the K-Carriage from left to right.
The needles are selected.



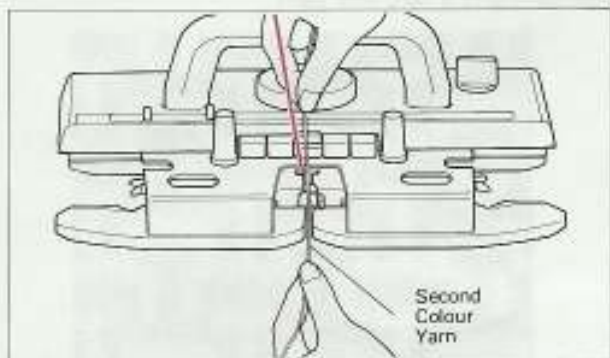
- 5) **STEP 3** Push the MC buttons (both upper and lower ones) at the same time.



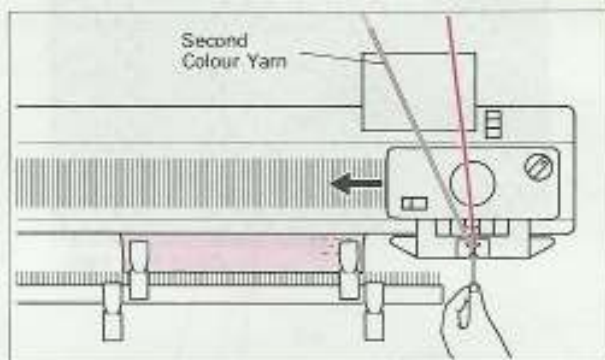
- 6) **STEP 4** Set the Card Lock Lever at the ▼ mark.



7) Thread the second colour yarn into the Yarn Feeder B without opening the Yarn Feeder Lever.



8) Operate the K-Carriage while holding the yarn end with your left hand.

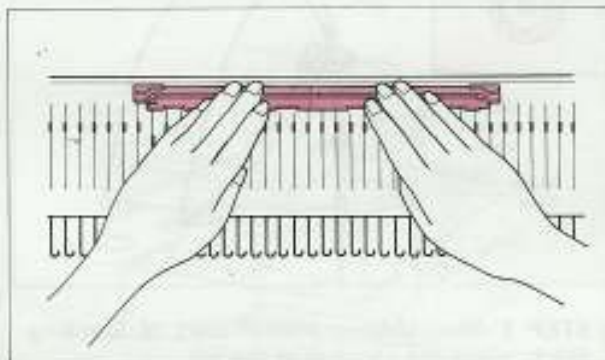


THREAD LACE MOTIF PATTERN

You can also work motif patterns in Thread Lace Pattern. Refer to the explanation of Fairisle Motif Pattern and place the Motif Knitting cams on the needle bed.

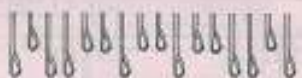


Card No. 15p



NOTE

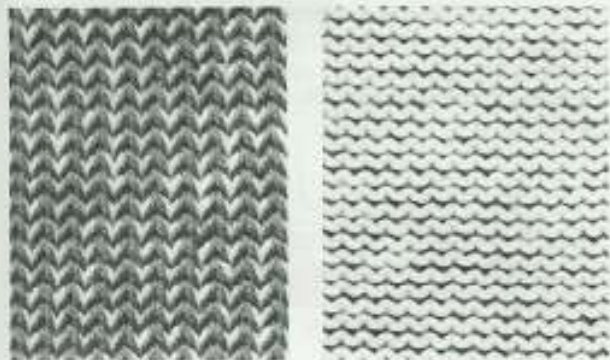
Two needles in D position, side by side, are the limit for a successful Thread Lace Stitch.



2 needles

Position B
Position D

PLATING YARN KNITTING



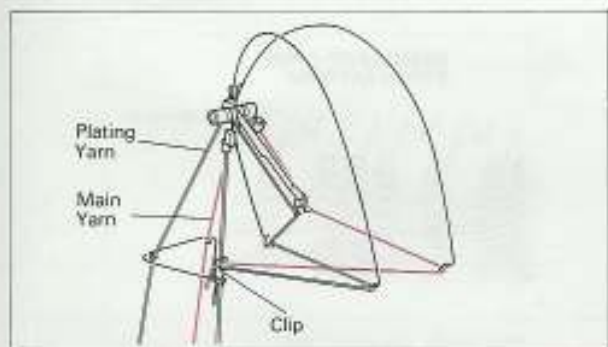
FRONT (Plain)

REVERSE (Purl)

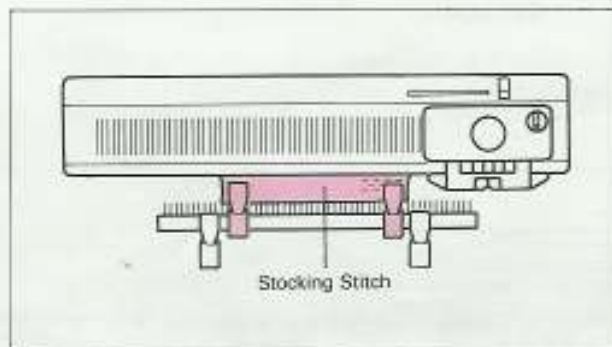
With the Plating Yarn Feeder it is possible to use two yarns to knit a reversible fabric with different colours on the front and reverse side.

The main yarn will appear on the front (plain) side of the fabric and plating yarn will appear on the reverse (purl) side of the fabric.

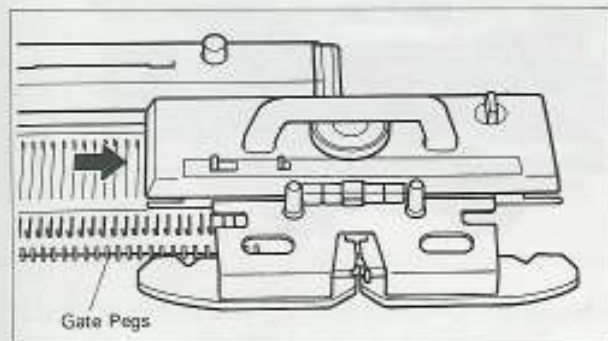
1) Thread the yarn as shown in the figure.



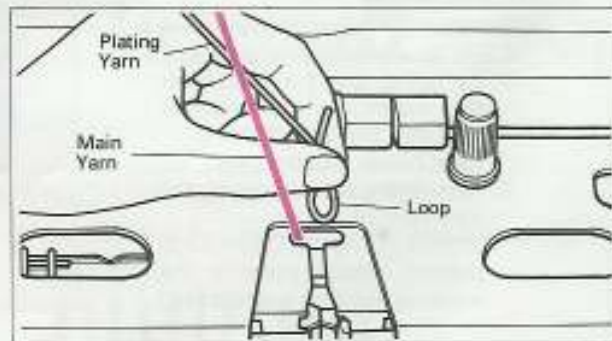
2) Knit several rows of Stocking Stitch and place the K-Carriage on the right side of the machine.
* Hang Claw Weights.



3) Move the K-Carriage outside the Gate Pegs.

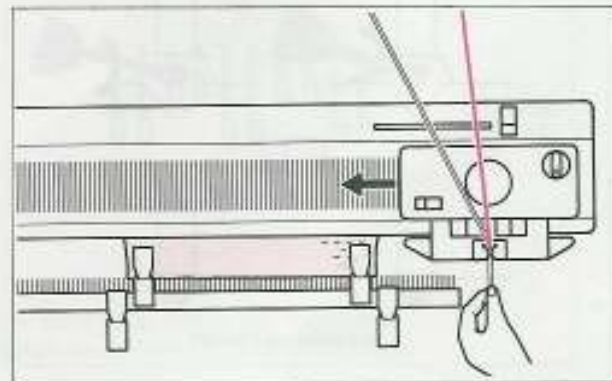
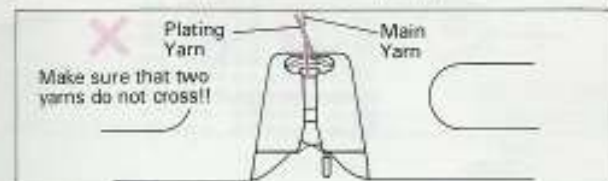
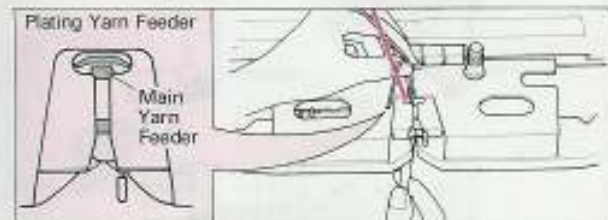


4) Pass the plating yarn behind the main yarn.



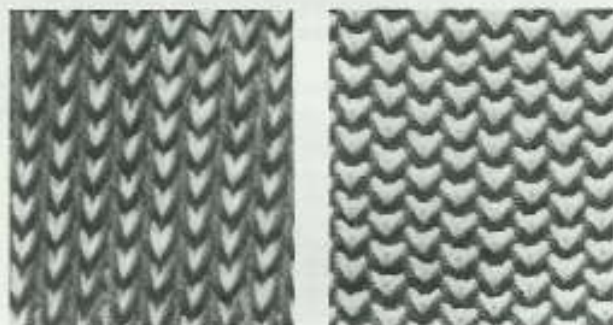
5) Thread the plating yarn in the Plating Yarn Feeder. Pull down the yarn by using the Latch Tool.

6) Operate the K-Carriage while holding the end of the yarn with your left hand.



TUCK STITCH PLATING YARN KNITTING

SWITZCHER PUNCH KNITTING



FRONT (Stocking Stitch)

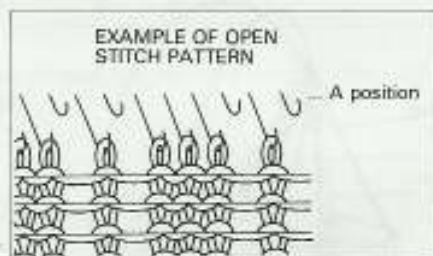
REVERSE (Purl)

Card No. 1 p

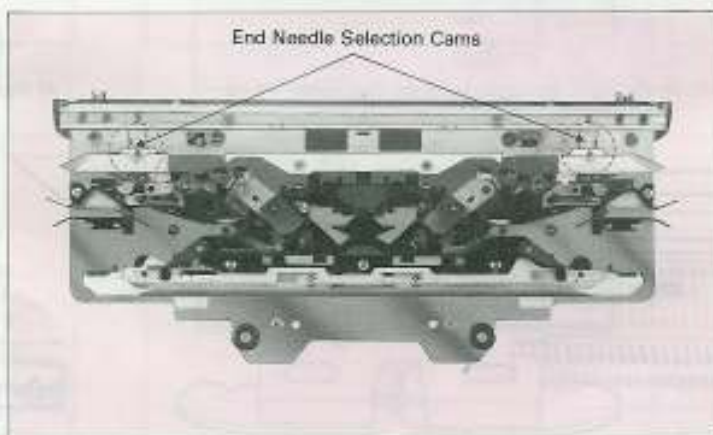
Using the punch card for Tuck stitch patterns with plating yarn knitting you can also enjoy Tuck stitch-Plating yarn knitting. (Preparation and the operation are the same as Tuck stitch pattern and Plating yarn knitting.)

HOW TO CANCEL THE WORKING OF END NEEDLE SELECTION MECHANISM

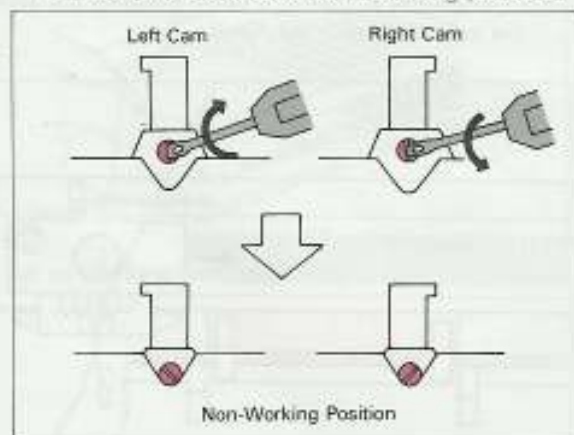
When knitting Thread Lace Pattern or Open Stitch Pattern with the Punch Card (some needles remain at Position A), you will need to cancel the working of End Needle Selection Mechanism on both sides of the K-Carriage.



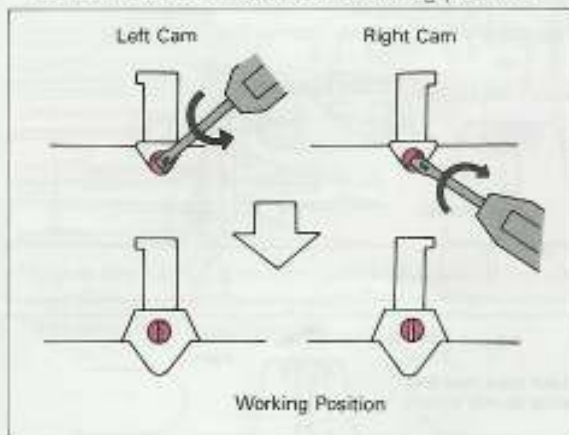
- 1) Set the Change Knob at position "KC"
- 2) Remove the K-Carriage from Needle bed and turn the K-Carriage over.
- 3) Set both End Needle Selection Cams to non-working position.
 1. By using the 1 x 3 transfer tool insert the tip of transfer tool into the slot of cam. (See below illustrations.)
 2. Turn the transfer tool to the direction of arrow. (After knitting the Open stitch pattern, return them to the working position without fail.)



● How to set Cams to Non-Working position.

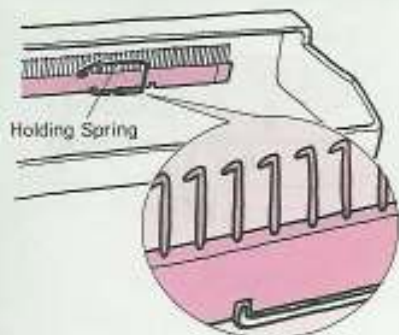


● How to return Cams to Working position.

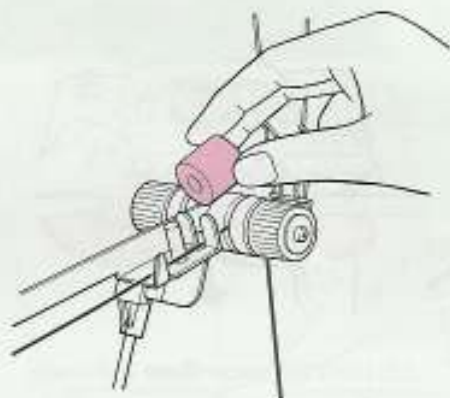


6. REPLACING THE KNITTING MACHINE IN THE CARRYING CASE

1) Join the Cast-on Comb and set it as shown in the figure. Then fix it with the Holding Springs.



2) Remove the Wax in the case.



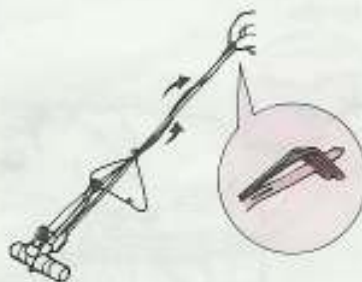
3) Fold down the Front Guide Arm.



4) Wind and fix the Take-up Spring to the rod as shown in the figure.



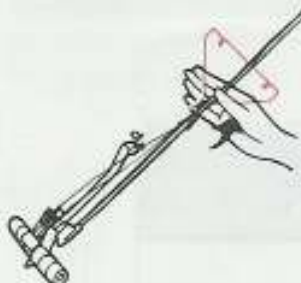
Fold down.



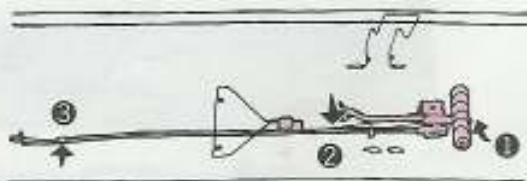
5) Put the Sub Take-up Spring on the rod.



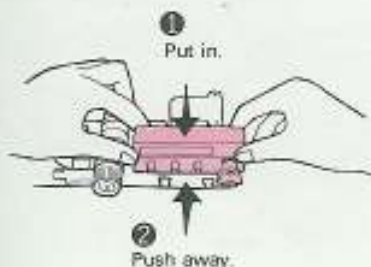
6) Fold down the Rear Yarn Guide.



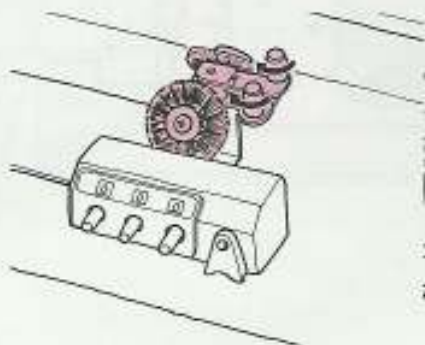
7) Set the Yarn Tension Unit in the case.



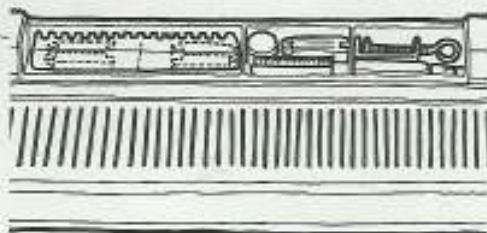
8) Set the Row Counter onto the two studs in the carrying case and push it away from you.



9) Fix the Wheel Brush.

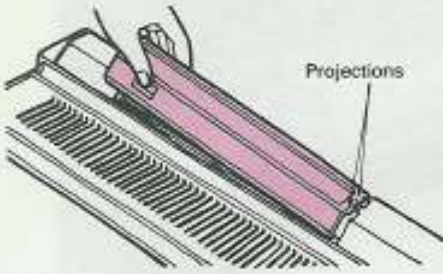


10) Remove the Table Clamps and put them in the Accessory Box with the other parts.

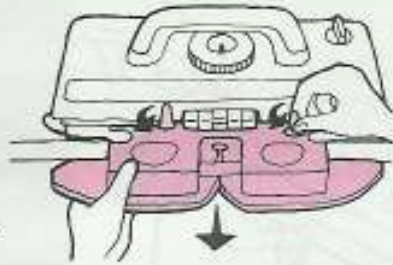


REPLACING THE KNITTING MACHINE IN THE ACCESSORY BOX

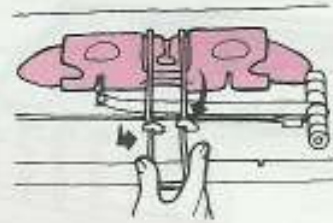
11) Close the lid of the Accessory Box.



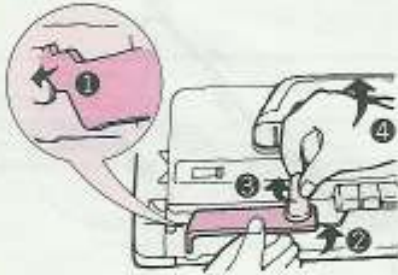
12) Loosen the knobs and remove the Sinker Plate Assembly from the K-Carriage.



13) Put the Sinker Plate Assembly in the case and fix it by the spring.



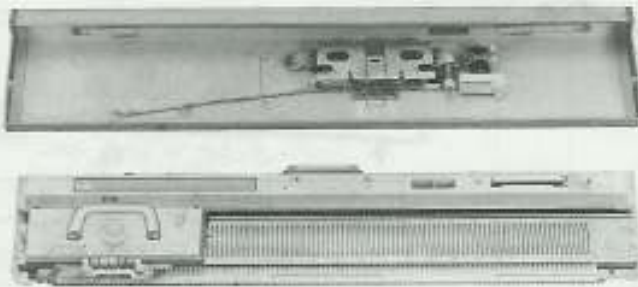
14) Insert the Carriage Lock in the hole at the left of the machine and lock the carriage. Then fold down the Carriage Handle.



15) Hold the upper case and close it. Then lock the two catches on either side of the handle.



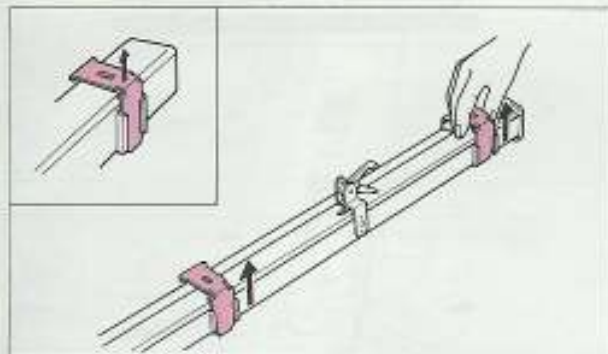
THE STORAGE CONDITION



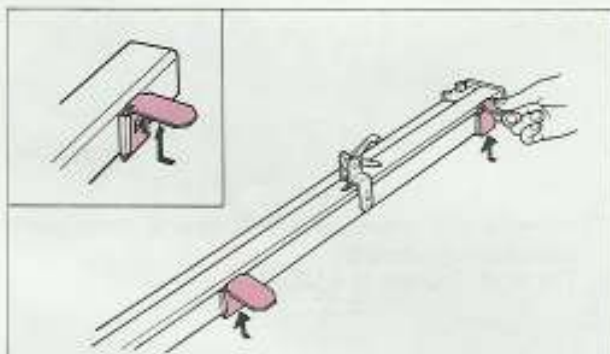
USING THE KNIT LEADER

HOW TO SET UP YOUR KNIT LEADER

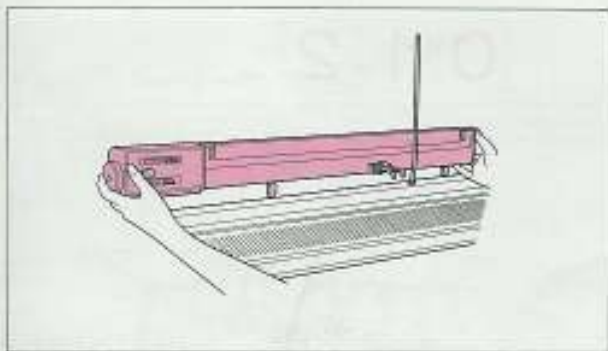
1) Take the Knit leader out of the case and pull out both Setting Plates.



2) Insert them into each Setting Plate Holder.



3) Put the Setting Plates into the slots at the back of the knitting machine. (Refer to the Instruction Manual of Knit Leader.)



TENSION AND KNITTING A TENSION SWATCH

The size of the stitch is determined by the tension setting on the Carriage Dial, the thickness, fibre content and the brand of yarn.

To knit a garment to the correct size of your pattern you need to know the size of the stitch.

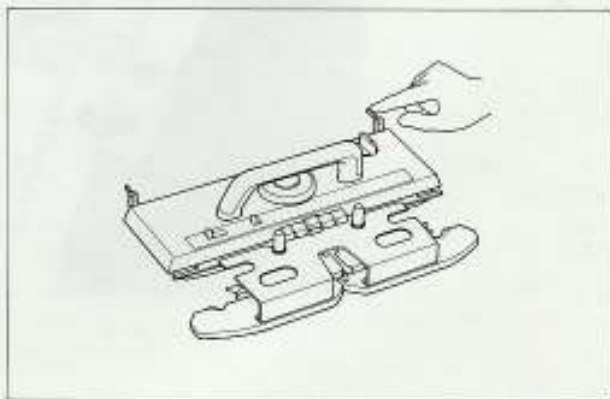
Before you start knitting, you should make a sample tension swatch and from it measure the length of 30 rows and 20 stitches.

Followings are the way to knit a tension swatch.

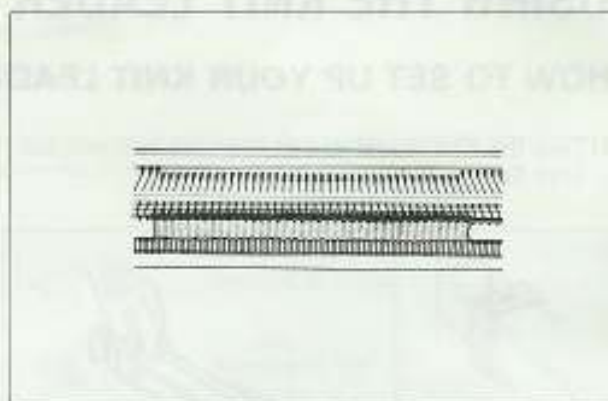
To knit a tension square correctly, note the followings.

*Note: It is important that you make and measure a tension swatch every time before beginning a garment, irrespective of whether or not you intend to use Knit Leader.

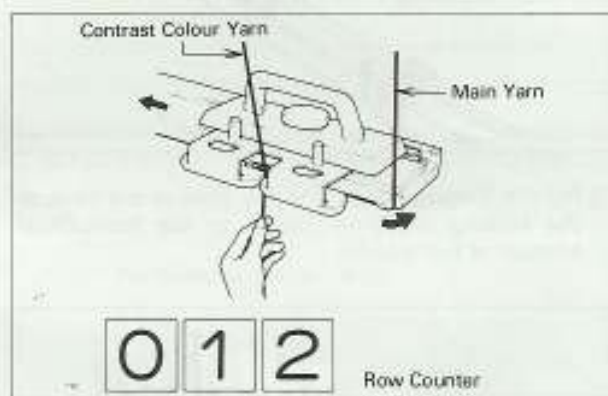
1) Set the Row Counter number 000.
Set the Row Counter Tripper and Knit-leader Tripper to working position.



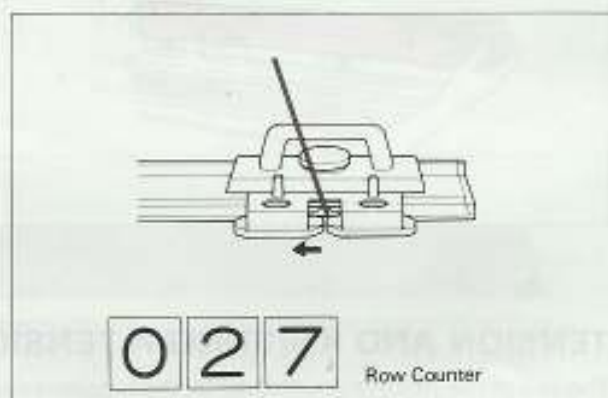
- 2) Bring forward 40 needles (20 needles on either side of center mark) to B position, and knit ten rows in main yarn.



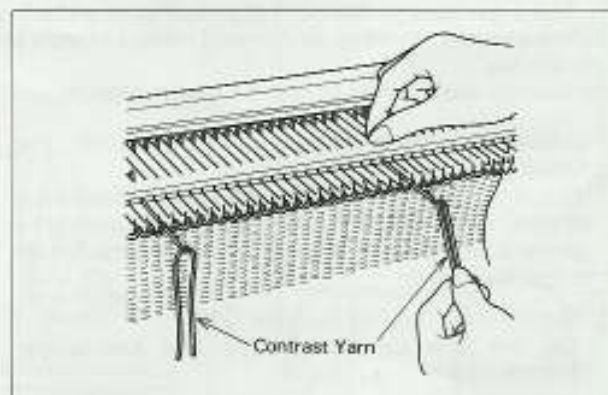
- 3) Remove the main yarn and knit 2 rows with contrast colour yarn.
The Row Counter is 012.



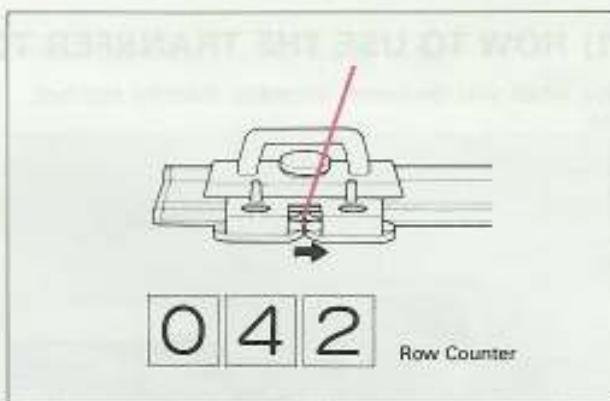
- 4) Re-thread the main yarn and knit 15 rows.
The Row Counter is 027.



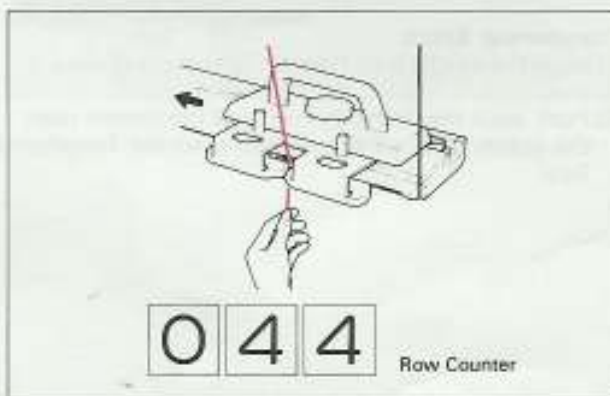
- 5) Bring forward both 11th needle on either side of centre D to E position.
Hook a short piece of contrast yarn onto the 2 needles and make stitches as shown in the illustration.



6) Knit 15 rows again in main yarn.
The Row Counter is 042.

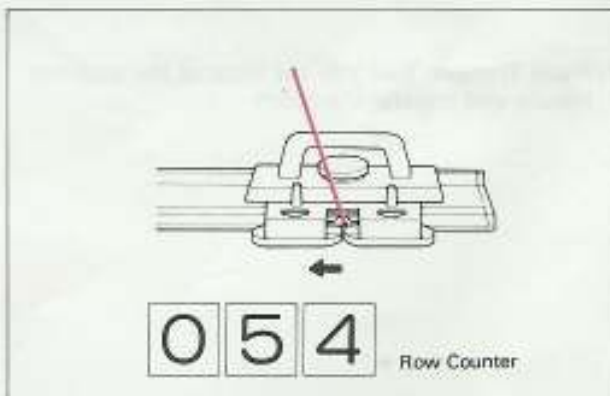


7) Remove the main yarn and knit 2 rows with contrast colour yarn.
The Row Counter is 044.



8) Re-thread the main yarn and knit 10 rows.
The Row Counter is 054.

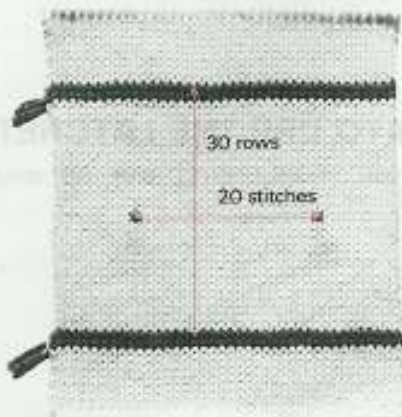
9) Remove the swatch from the knitting machine.



How to measure the swatch

After pressing the swatch according to yarn label set the regulators.

- 1) Measure the height of 30 rows (between rows knitted in contrast colour)
- 2) Measure the width of 20 stitches (between the 2 contrast colour stitches).
- 3) Select the correct-stitch scale. (See KL instruction book.)

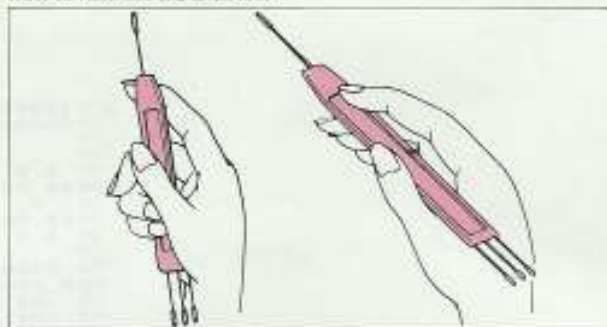


MAKING GARMENTS

(1) HOW TO USE THE TRANSFER TOOL

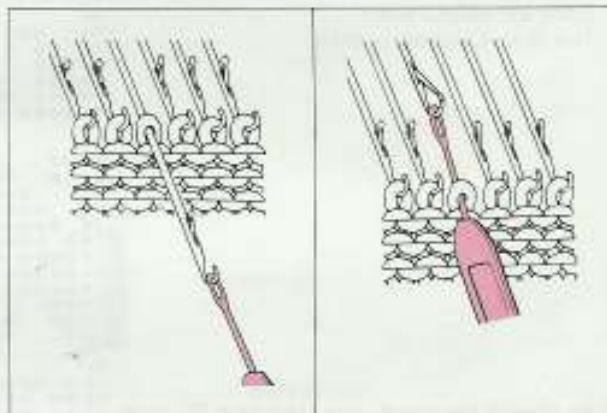
Use when you decrease, increase, transfer stitches, etc.

How to hold the transfer tool

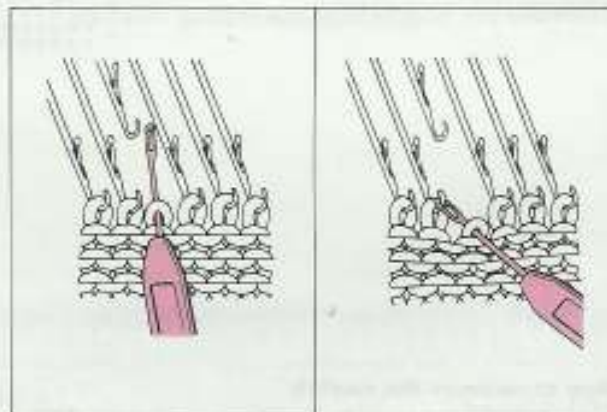


Transferring Stitch

- 1) Hook the needle with Transfer Tool and pull toward you.
- 2) Push back the Transfer Tool and the needle until the stitch slips off the needle onto the Transfer Tool.



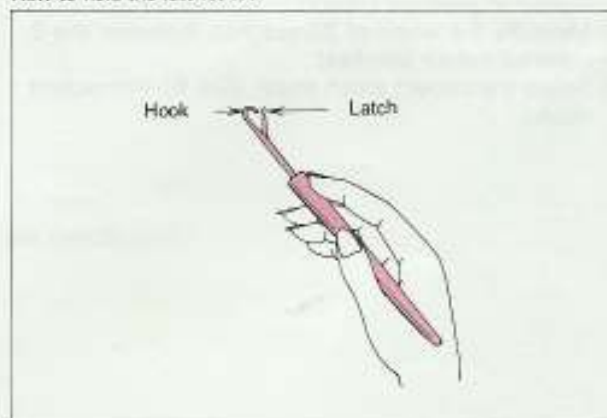
- 3) Place Transfer Tool into the hook of the adjacent needle and transfer the stitch.



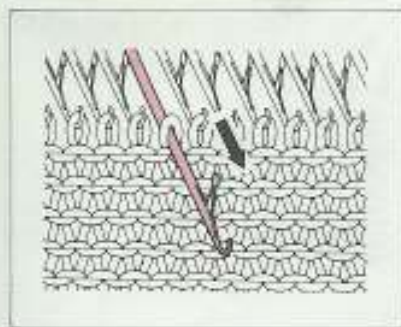
(2) HOW TO USE THE LATCHET TOOL

Use when you make ribbing, pick up dropped stitches, etc.

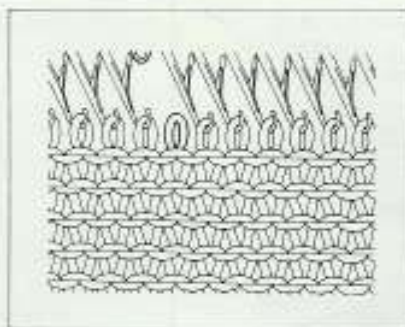
How to hold the latchet tool



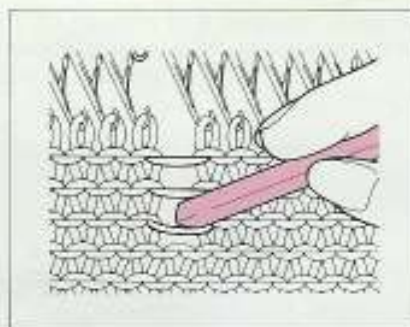
Making Rib by Hand



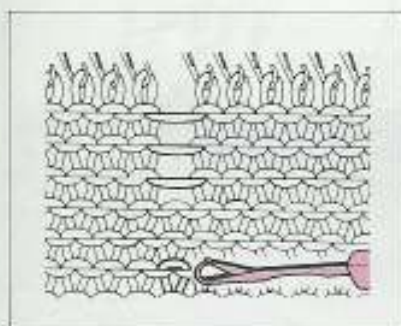
1) Bring one needle forward to position E by hand and return it to position A.



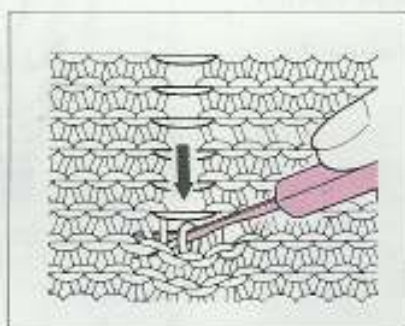
2) One stitch has been dropped from the hook of the needle.



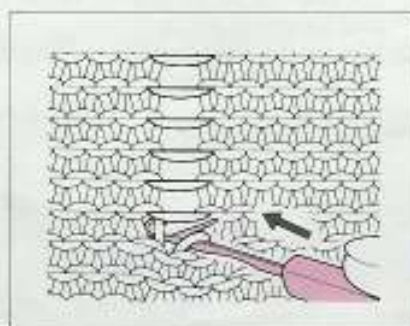
3) Using the tip of your Latchet Tool, unravel your knitting.



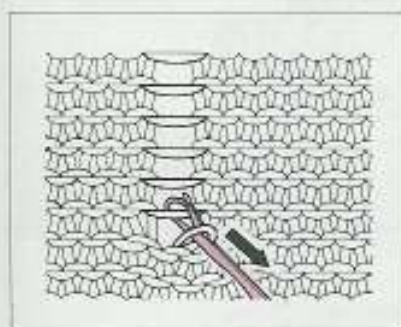
4) Drop the stitch in the line you wish to rib to a few rows above where you are to start ribbing. Then place the Latchet Tool in the stitch where you wish to start ribbing.



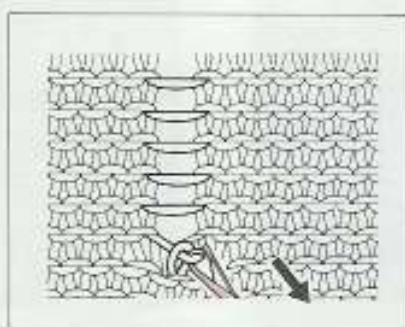
5) Depress the Latchet Tool to drop the last few stitches. The stitch is on the stem of the Latchet Tool.



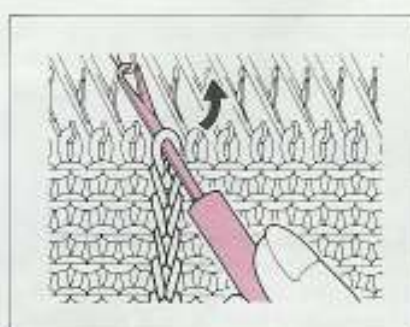
6) Hold the knitting firmly. Push the Latchet Tool away from you until the stitch on the Latchet Tool is behind the latch.



7) Catch the next parallel thread with the hook of the Latchet Tool and pull the Latchet Tool toward you.



8) The Latchet will close with the new yarn in the hook. Pull this new yarn through the stitch on the stem of the latch tool to form new stitch. Do not pull the latch tool strongly.



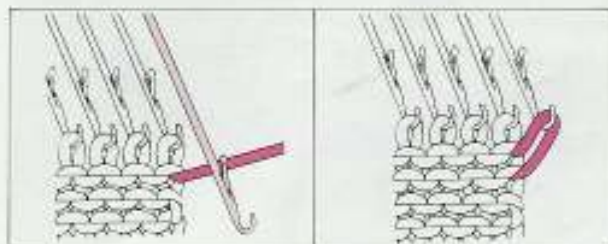
9) Repeat this until you reach the top, and hook the last stitch on the hook of the needle.

(3) HOW TO INCREASE STITCHES

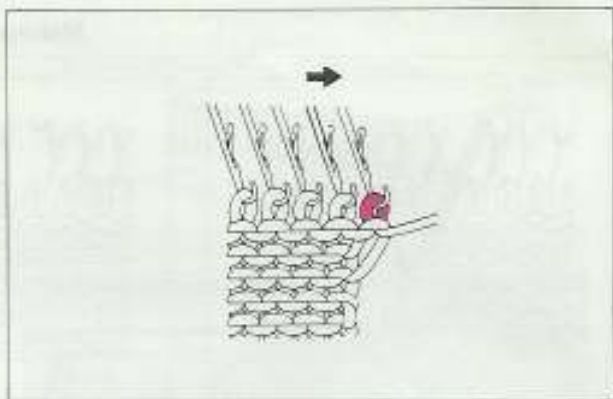
3-1. Increasing one stitch (Simple method)

On the carriage side

- 1) On the carriage side, push one edge needle from position A to E.
- 2) Knit one row, and the empty needle will pick up the yarn.



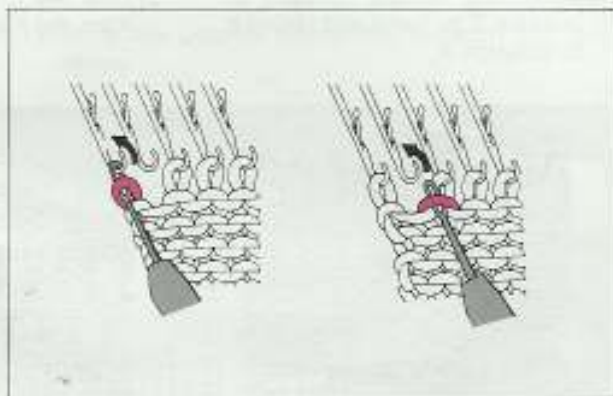
3) Knit another row, and one stitch will be formed.



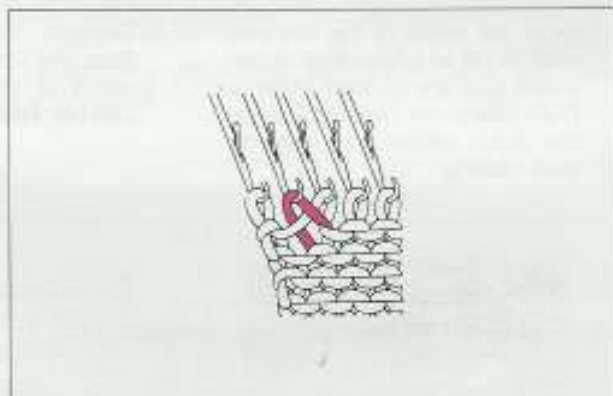
3-2 Increasing one stitch (Fully-fashioned method)

At either side of knitting

- 1) Using the Transfer Tool, move one stitch of edge out one needle, so that the second needle from the end becomes empty.
- 2) Pick up the loop as shown using the Transfer Tool.



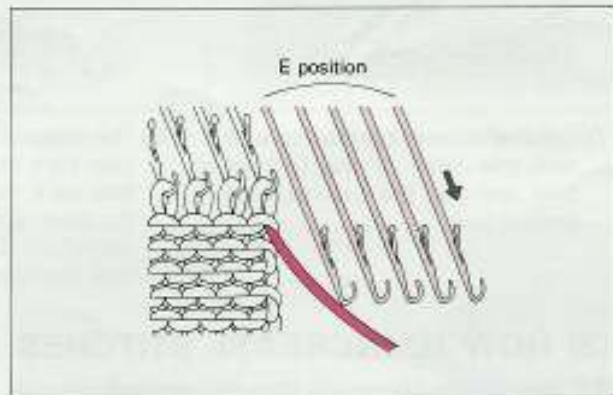
3) Hook loop stitch onto the empty needle.



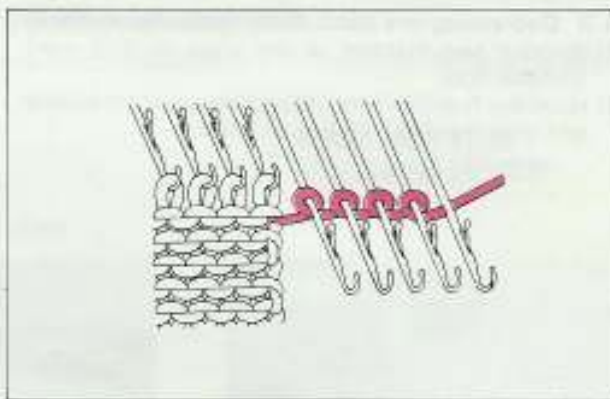
3-3 Increasing several stitches

On the carriage side

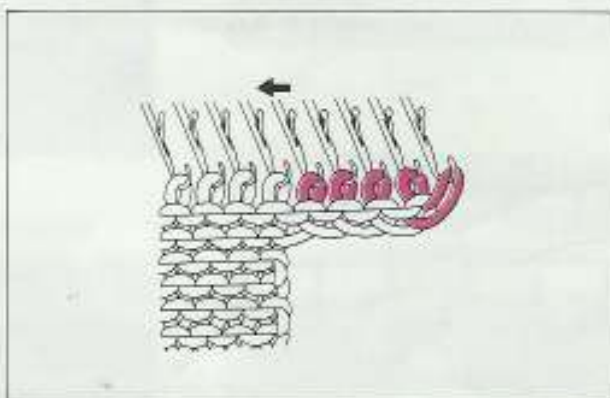
- 1) On the carriage side, pull the needles to be increased from A to E position.



2) Wind the yarn loosely around the stems of each needle, but on end needle only, pass the yarn under the needle.



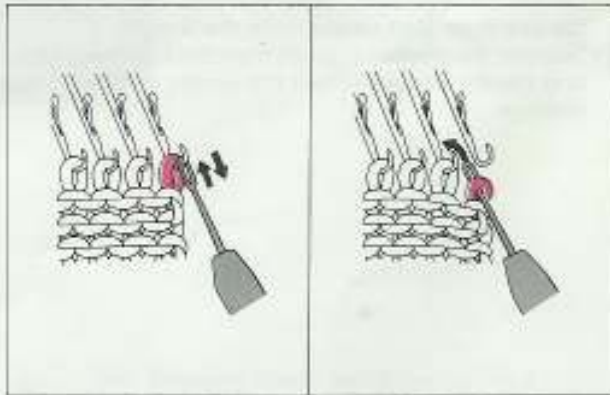
3) Knit one row. If stitches do not knit smoothly, pull the needles of increased stitches to E position.



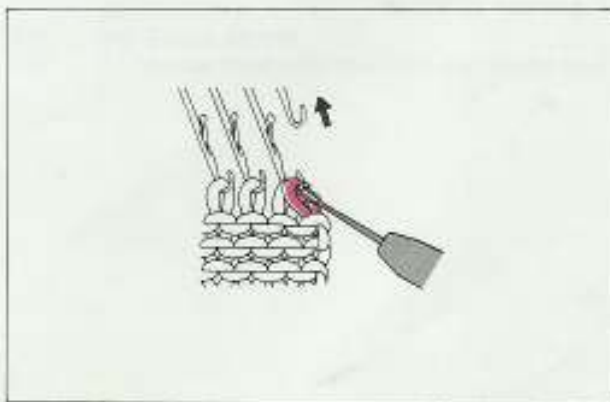
(4) HOW TO DECREASE THE STITCHES

4-1 Decreasing one stitch (Simple method)

- 1) Remove one stitch at the edge onto the Transfer Tool.
- 2) Hook the Transfer Tool onto inside adjacent needle and transfer the stitch.



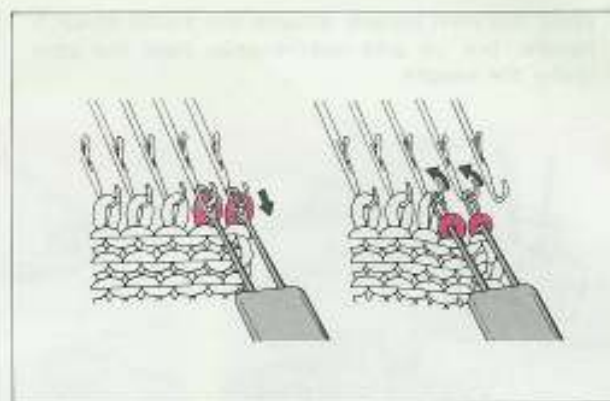
3) Return the empty needle to A position.



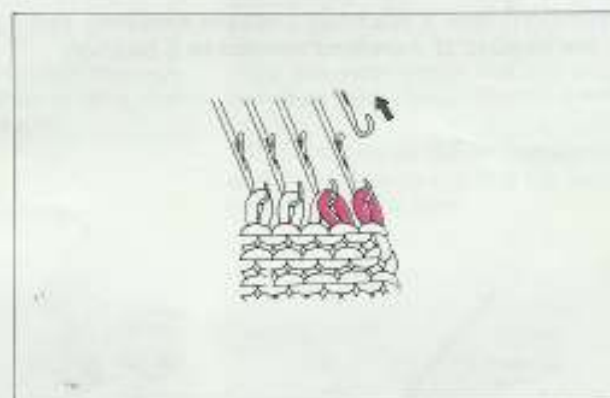
14. BASIC OPERATION

4-2 Decreasing one stitch (Fully-fashioned method)

- 1) Remove two stitches at the edge to a 2 eyed Transfer Tool.
- 2) Hook the Transfer Tool onto inside adjacent needle and then transfer stitches as shown.

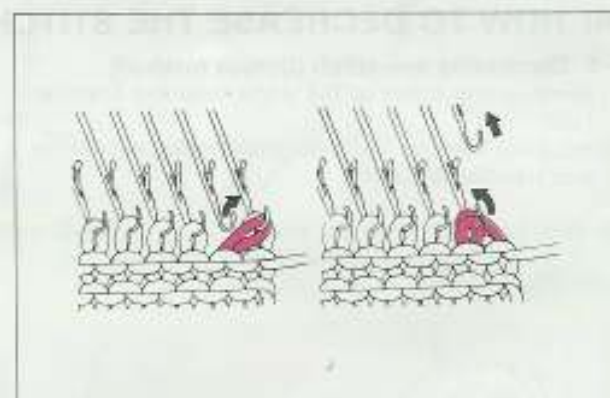


- 3) Return the empty needle to A position.

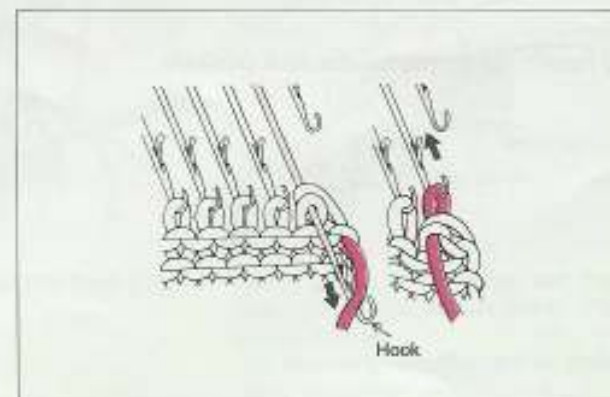


4-3 Decreasing several stitches

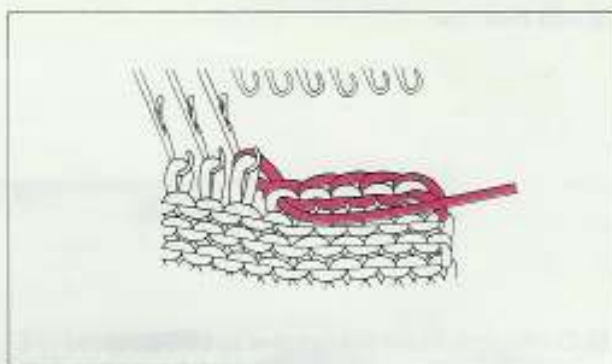
- 1) On the carriage side, using Transfer Tool, transfer the stitch on 2nd needle onto the first.
- 2) Transfer the double stitches from the first needle to one needle in and return the empty needle to A position.



- 3) Pass the yarn under the stem of the first needle in E position as shown.



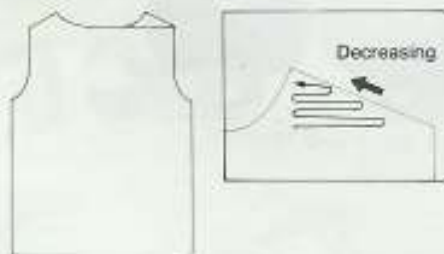
- 4) Repeat the process from Step 1 to Step 3.
(But the last stitch is done until Step 2.)



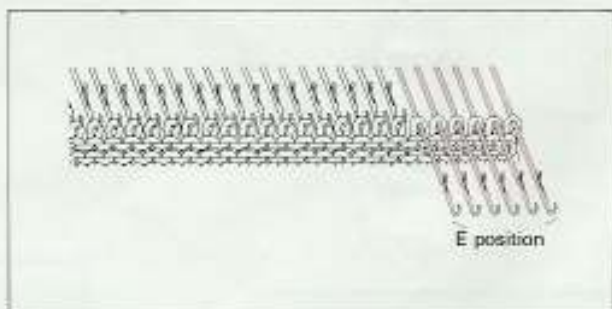
(5) PARTIAL KNITTING

5-1 Decreasing stitches

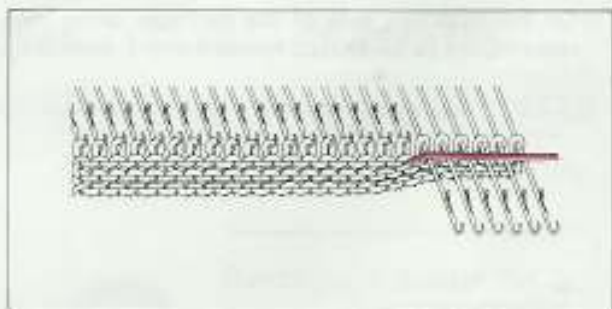
When knitting the decreasing part for example shoulder, neck opening, etc., set the Holding Cam Lever of the K-Carriage to position H.



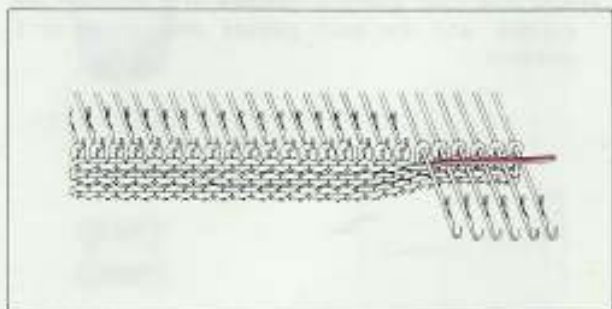
- 1) On the opposite side of the carriage, bring forward the needles which you want to decrease to E position.



- 2) Knit one row. The needles in B position are knitted, and in position E the yarn will pass on the needles.

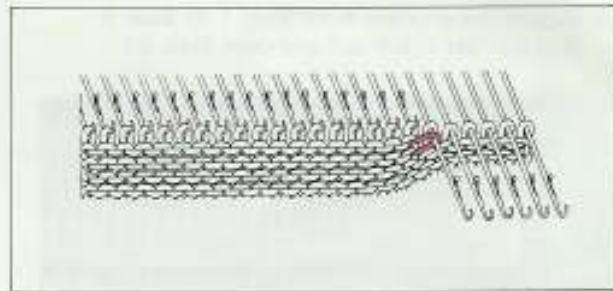


- 3) Pass the yarn under the stem of the first needle in E position as shown.

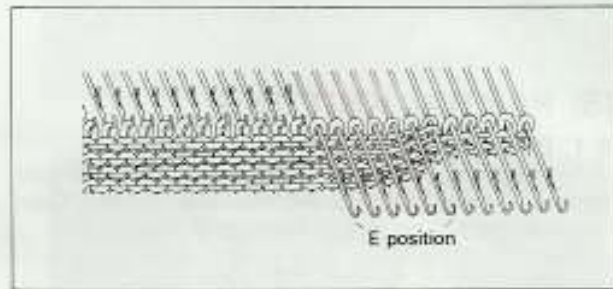


2. BEFORE STARTING TO KNIT

4) Knit one row.

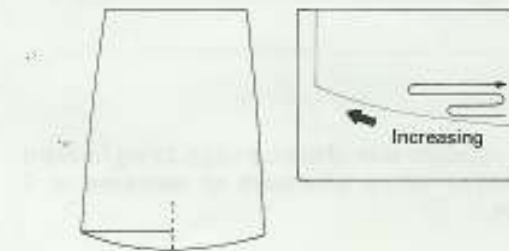


5) Continually move the needles to be decreased to E position, and repeat the process from Step 1 to Step 4.

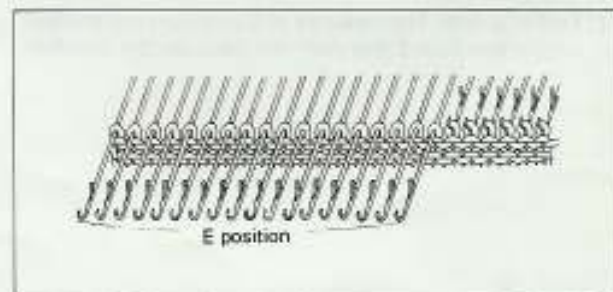


5-2 Increasing stitches

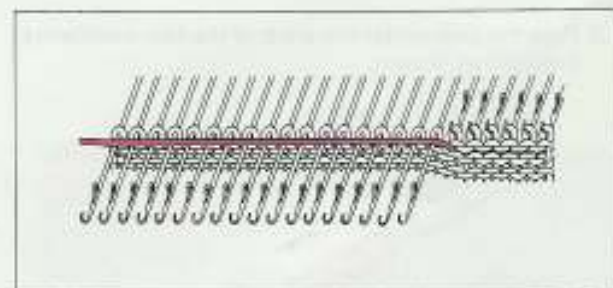
When knitting the increasing parts for example the hemline of a skirt, set the Holding Cam Lever of the K-Carriage to position H.



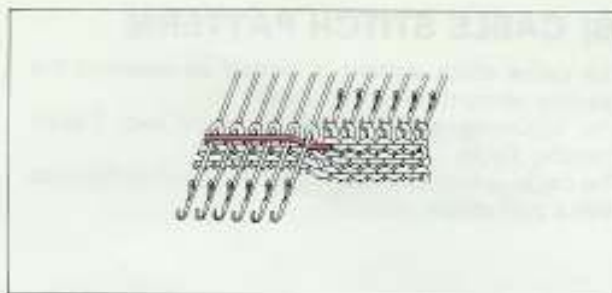
1) On the opposite side of the carriage, bring the needles not to be knitted forward into E position.



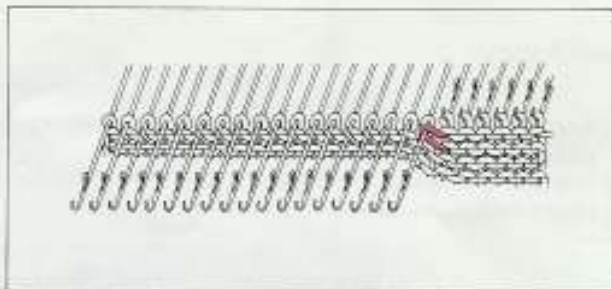
2) Knit one row, and the needles in B position are knitted, and the yarn passes over those in E position.



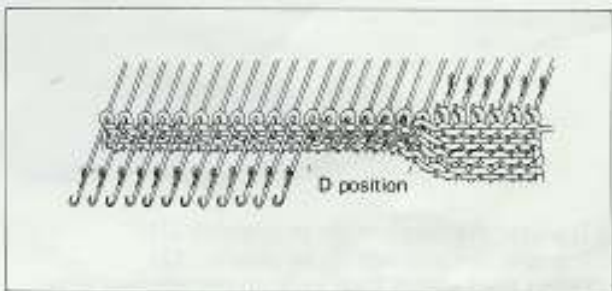
3) Pass the yarn under the stem of the first needles in E position.



4) Knit one row.

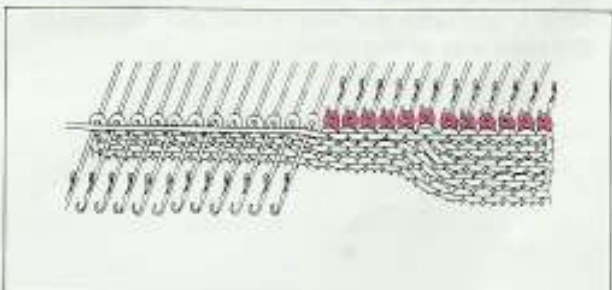


5) Manually return the needles to be increased from position E to D.



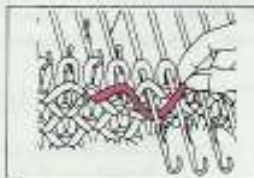
6) Knit one row, and the needles which you brought to D position are knitted.

7) Repeat the process from Step 3 to Step 6.



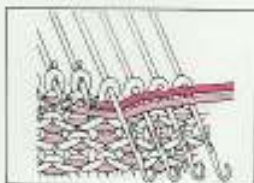
FOR TUCK STITCH PATTERN

If the end needle is selected to position D, pass the yarn over the hook before passing it under the stem of the next needle.



FOR FAIRISLE AND WEAVING PATTERN

Pass the second colour yarn or weaving yarn under the stem with the main yarn.

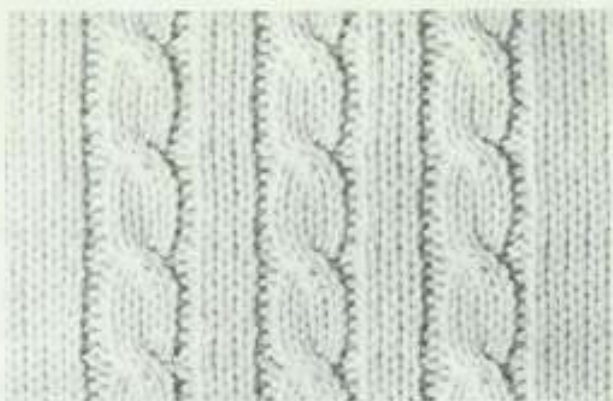


(6) CABLE STITCH PATTERN

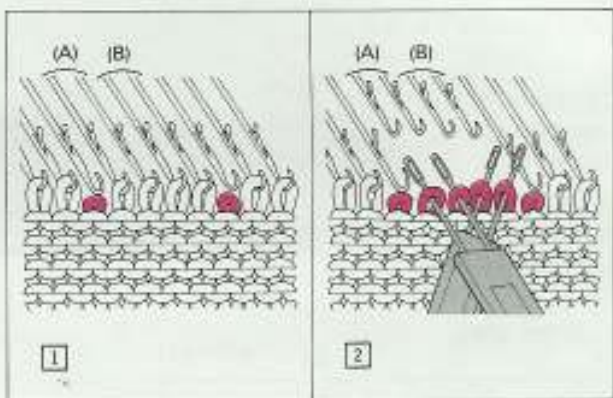
The cable stitch pattern is knitted by crossing the stitches using the Transfer Tool.

The following example is knitted by two 2-eyed Transfer Tools.

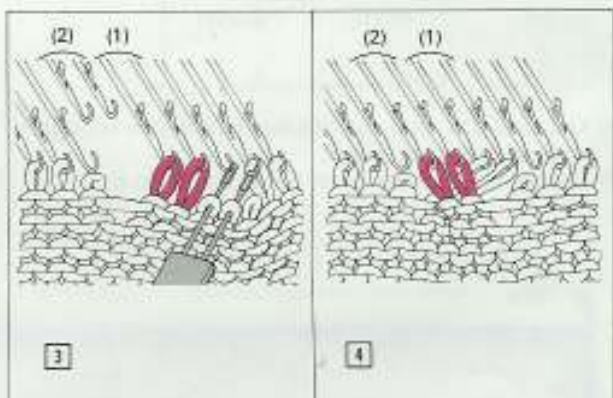
The cable is four stitches wide, flanked on either side with a purl stitch.



- 1) Knit several rows and drop both outside stitches on either side of the cable pattern stitches.
- 2) Transfer 3 stitches onto each 2-eyed Transfer Tool. (See illustration).



- 3) Transfer the stitches (A) to position (1). Transfer the stitches (B) to position (2).
- 4) Using the Latchet Tool, pick up the stitches which you have dropped and allowed to ladder down in Step 1, and latch them up to form purl stitches on the right side of the fabric.



(7) RIBBING STITCHES (1 x 1 rib)

The 1 x 1 rib is one plain and one purl stitch alternating along the row. It is used for waistbands, cuffs, collars etc.

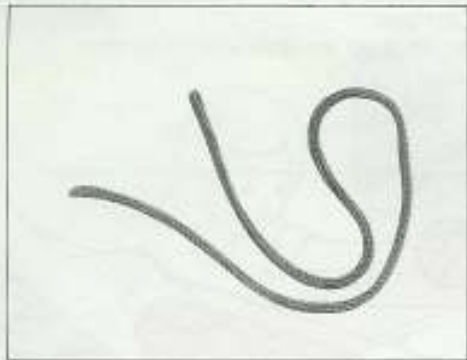
Refer to page 48 "HOW TO USE THE LATCHET TOOL".

Reform the purl stitch into a plain stitch on every other needle using the Latchet Tool.

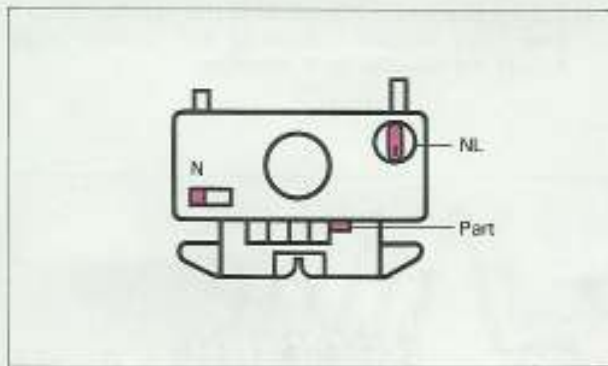


(8) TUBE KNITTING

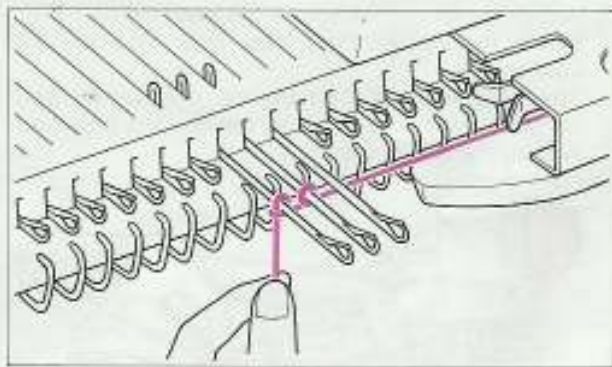
Tube knitting is a kind of Skip stitch knitting which makes a seamless tube.



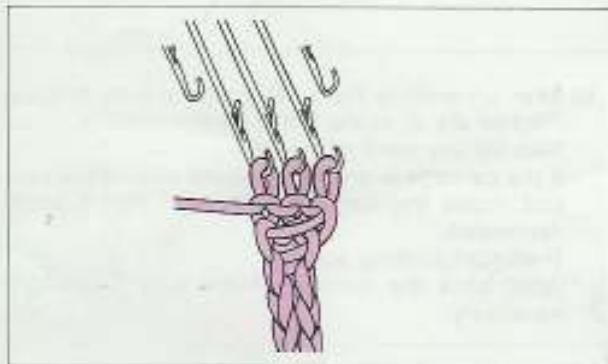
1) Place the K-Carriage at the right side of the machine and push the right or left Part Button. (Set the Tension Dial at one number lower than the original tension.)



2) Cast-on 3 or 4 needles by "e" wrap method.



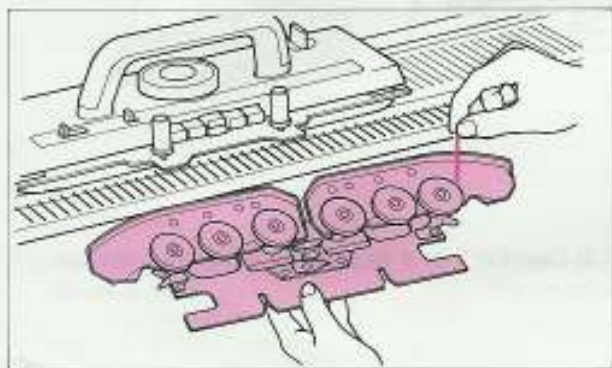
3) Pull down the fabric by left hand as you knit, and operate the carriage.



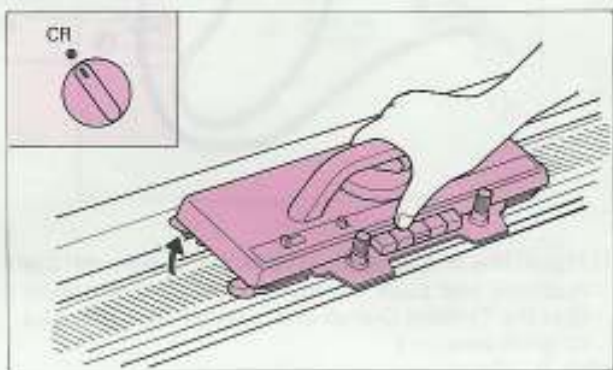
USEFUL HINTS

IF THE CARRIAGE SHOULD JAM WHEN WORKING STOCKING STITCH

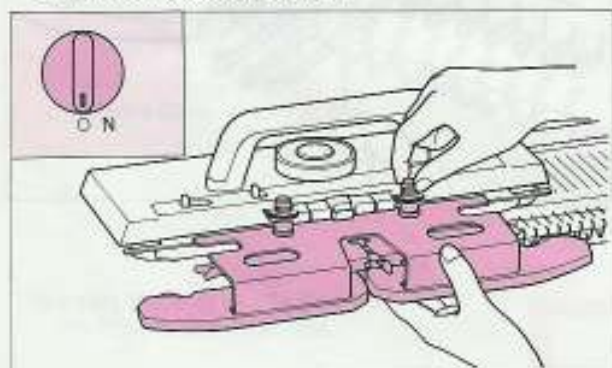
- 1) Do not move the carriage by force. Take the yarn out of the Yarn Feeder and loosen the knob to remove the Sinker Plate Assembly.
 - * If the yarn has tangled in the rubber wheels remove it from them.



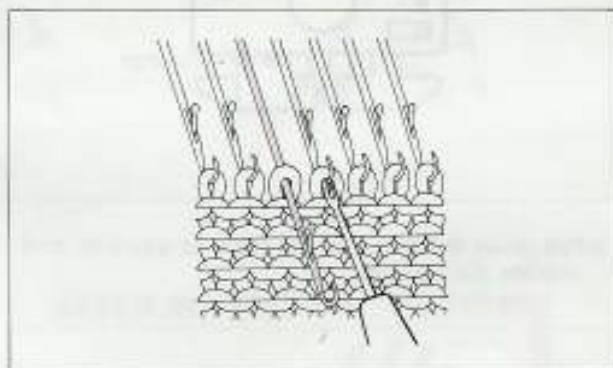
- 2) Set the Change Knob to position CR to release the K-Carriage.
Then lift it up towards you to remove.



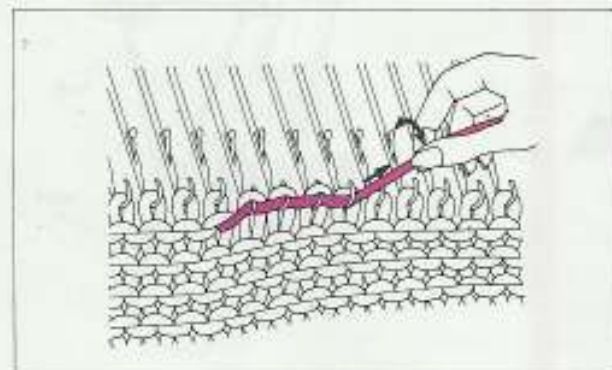
- 3) Return the Change Knob to the position NL.
Screw the Sinker Plate Assembly onto the K-Carriage.
Then place the K-Carriage on the Needle Bed correctly from the edge as the moving direction will be the same as before.



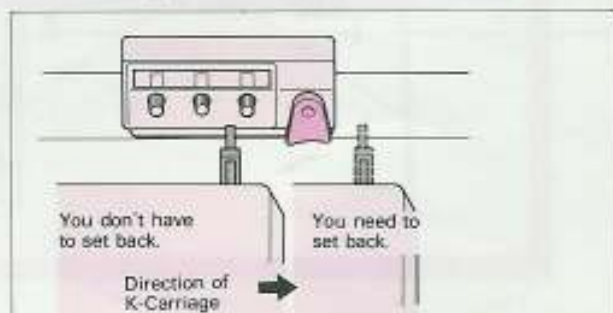
- 4) Put the stitches in the hooks of the needles again if they have slipped out using the Transfer Fool.
Adjust the needles to B position.



- 5) Unravel a row of the knitting by pulling the yarn slightly sideways and upwards.

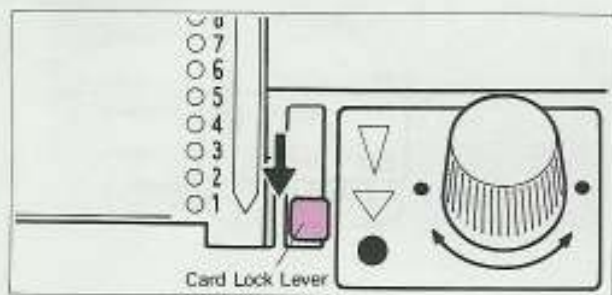


- 6) After unravelling the knitting make sure that the stitches are all in the hooks of the needles.
Take up any slack in the yarn.
If the carriage is on the Opposite side of the yarn end, move the carriage with both Part Buttons depressed.
Then start knitting again.
 - * Wind back the number of the Row Counter, if necessary.

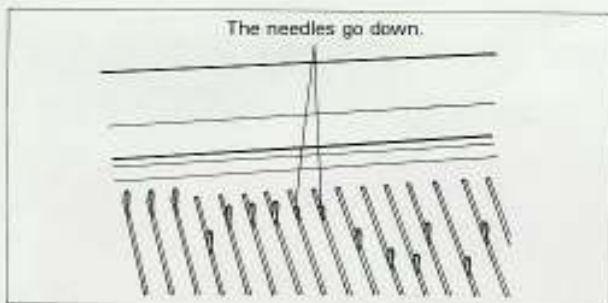


PATTERN KNITTING

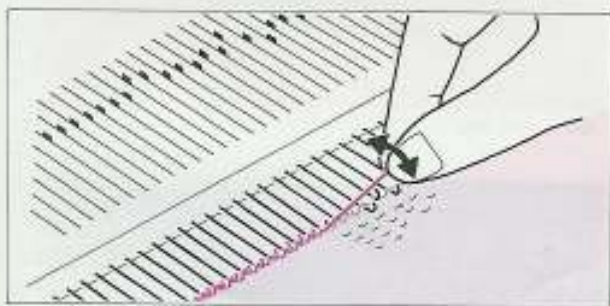
1) Set the Card Lock Lever at ● mark.



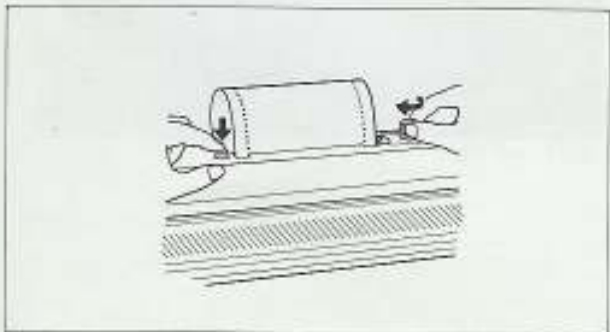
* If there are some needles which have slipped back down the needlebed, push the Card Feeding Button to bring them up.



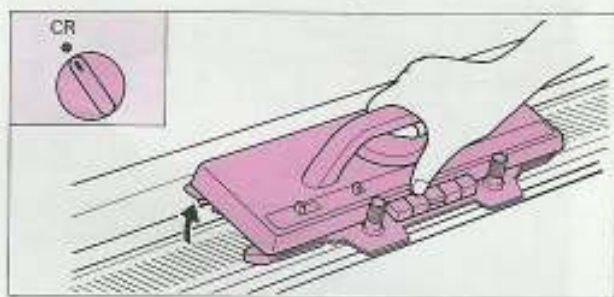
3) Refer to the explanation of Stocking Stitch adjust the needles and unravell the the knitting.



5) Wind back the Punch Card according to the number of rows you have unravelled.



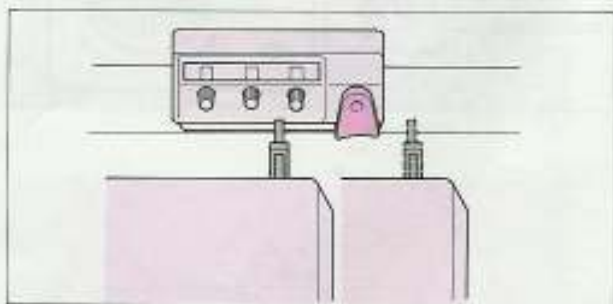
2) Take out the yarn, and the Sinker Plate Assembly. Then remove the K-Carriage.



IN CASE OF THREAD LACE PATTERN

You don't have to release the Cam Buttons in removing the K-Carriage. If you should release them, push the buttons again after you take off the K-Carriage without sliding it.

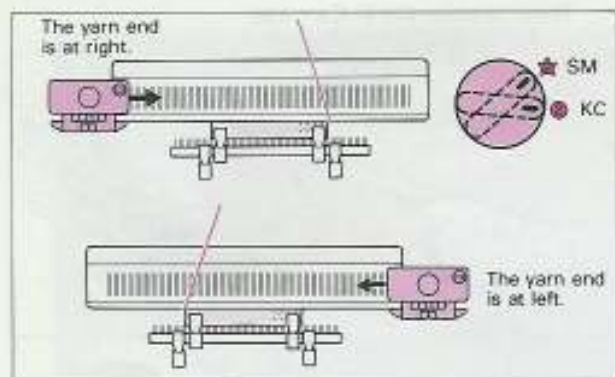
4) Wind back the Row Counter, if necessary.



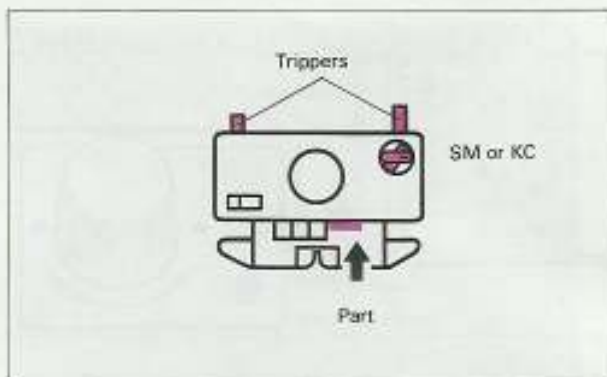
**IN CASE OF DOUBLE LENGTH PATTERN FEED
BACK THE CARD AS THE FOLLOWING CHART**

Number of Unravell (row)	Direction in which the Carriage has been moved	
	→	←
1	Rewind the Punch card 0 step (s)	Rewind the Punch card 1 step (s)
2	1	1
3	1	2
4	2	2
5	2	3
6	3	3
7	3	4
·	·	·
·	·	·
·	·	·

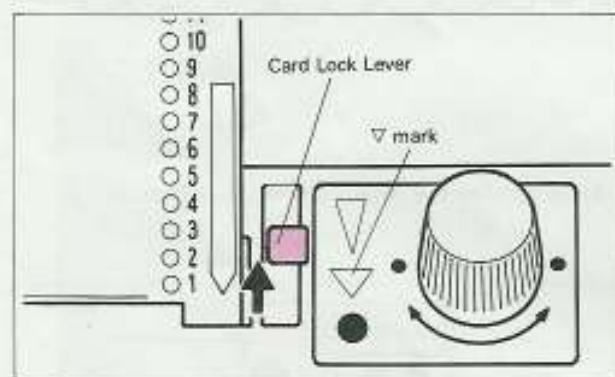
6) Set the Change Knob to KC or SM Position and place the carriage on the needle bed on the opposite side to the yarn end.



7) Push both Part Buttons and move the carriage to the side with the yarn end. The needles are selected. (Set the Trippers to non-working position.)

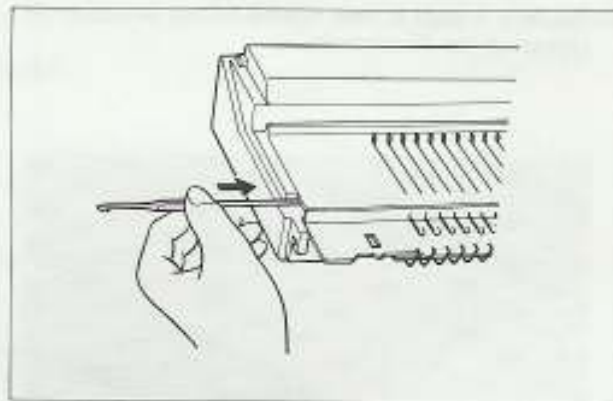


8) Thread the yarn
Set the Card Lock Lever at ▽ mark and set the carriage to the position of pattern knitting as before.
(Do not forget to set the Trippers to working position again.)
Then start knitting.

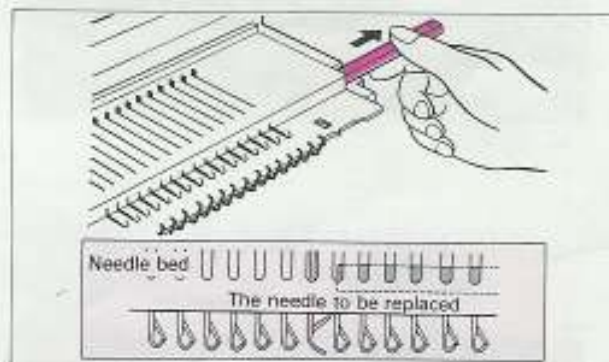


REPLACING A NEEDLE

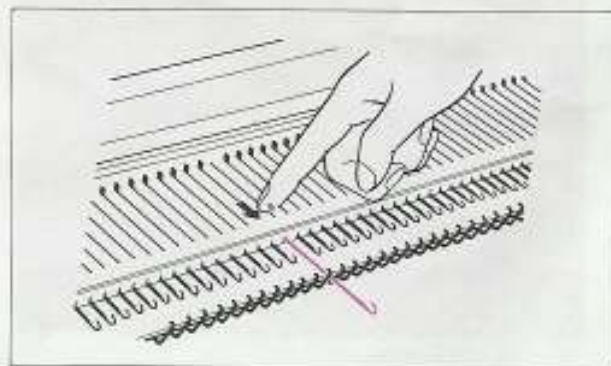
1) Push the sponge bar with the handle of the Crochet Hook.



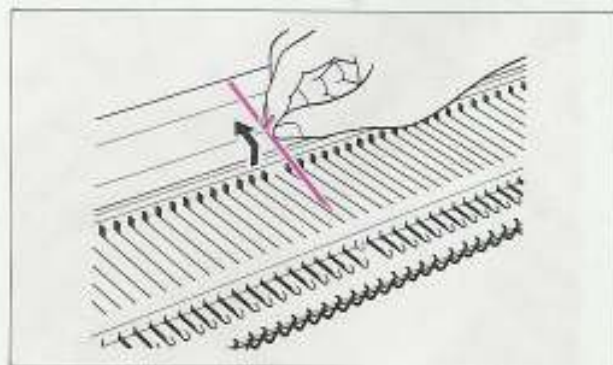
2) Draw out it by hand until the edge of the sponge bar passes through the needle to be replaced.



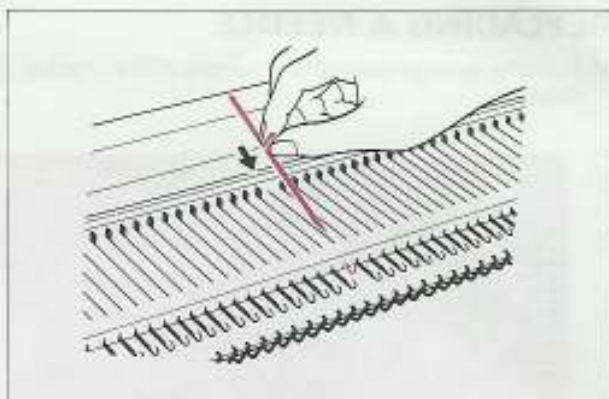
3) Push the needle forward to E position.



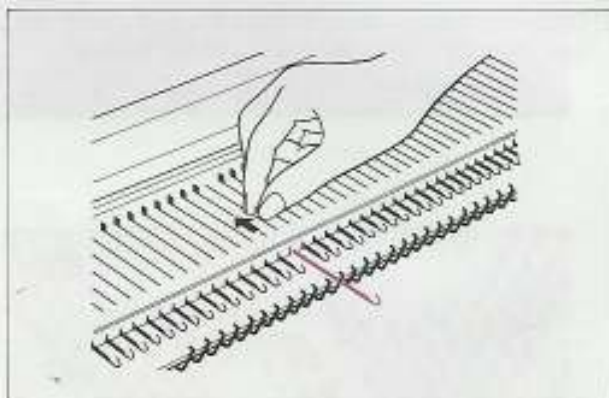
4) Push down the hook of the needle until shank end of the needle rises clear from the needle bed. Take the wrong needle out of the needle bed.



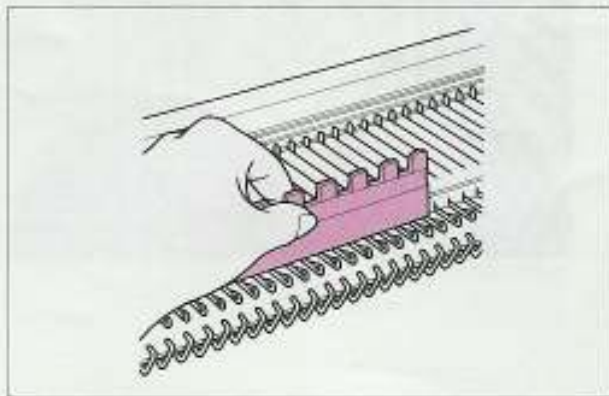
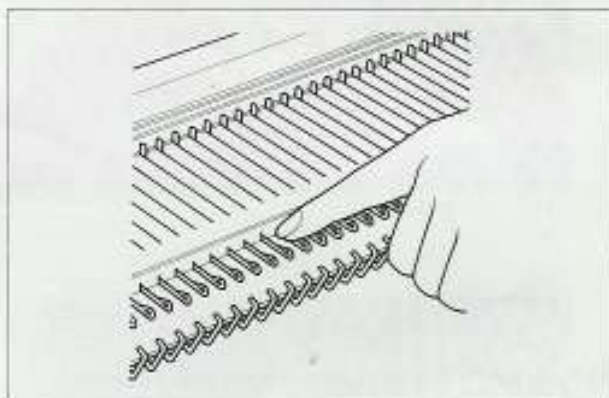
5) Replace it with a new needle in the direction as shown in the illustration.



6) Push the needle back to A position.

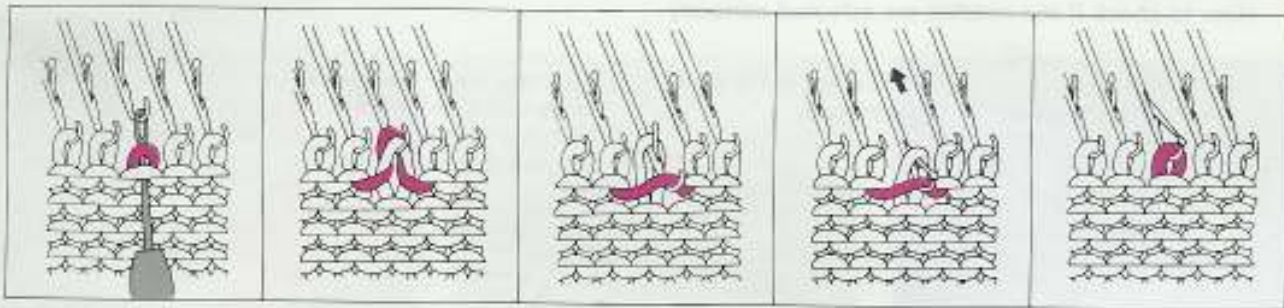


7) Push the sponge bar back holding the hook of the needles down with your hand or needle pusher.

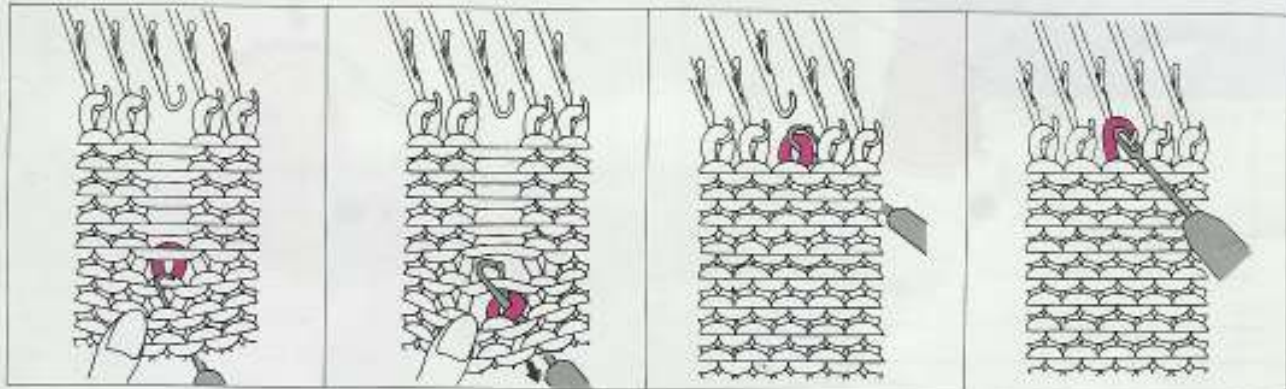


PICKING UP A DROPPED STITCH

Using the transfer tool, pick up the stitch (the row below the dropped stitch) and make up the stitch by hooking the loop with the needle.



Picking up a stitch that has dropped several rows



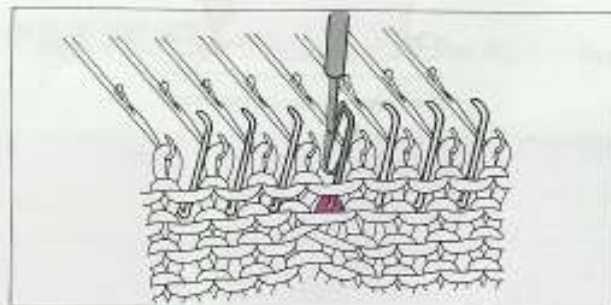
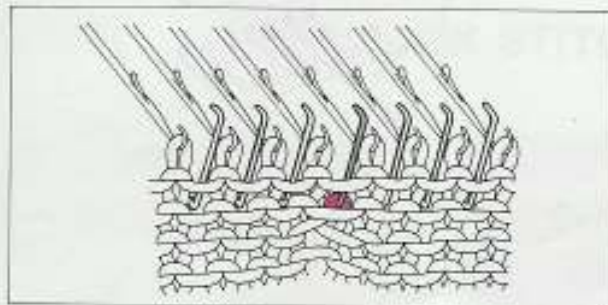
1) Using the Latchet Tool, from behind, hook up the bottom stitch and remake the stitches row by row.

2) On the last row transfer the stitch from the Latchet Tool to Transfer Tool, and hook the stitch onto needle.

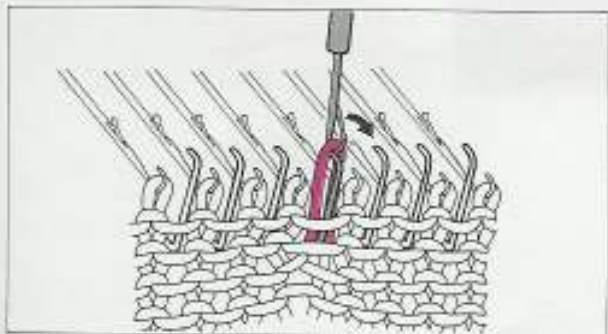
IF THE GATE PEGS CATCH THE YARN

If the yarn remains caught by the gate pegs, it is difficult to knit.

1) Place the Latchet Tool with the hook facing you.



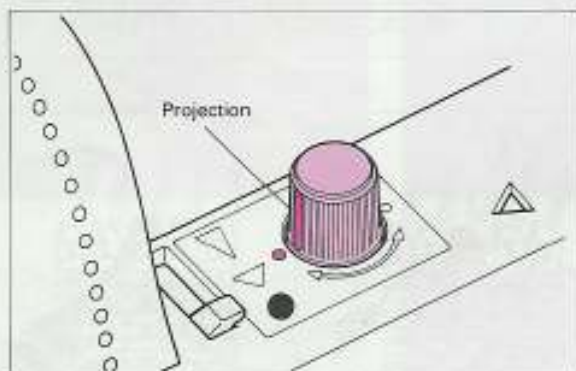
2) Hook the yarn caught by the gate pegs and unhook it over the gate pegs.



How to check if the needles are selected correctly

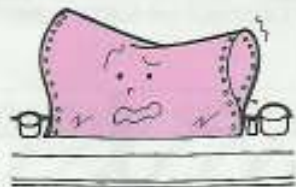
1) Set the projection of the Card Feeding Knob at = mark on the Panel without pushing it.

2) Push the Card Feeding Knob and turn it to the arrow direction one hundred eighty degrees. Then the card is fed back for seven rows and you can see the perforations of the pattern you are knitting.



Check following points if the needles are not selected correctly...

Is the card set correctly?



Are there any bent or broken needles?

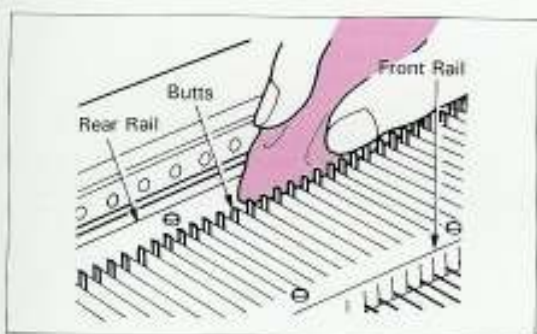


MAINTENANCE

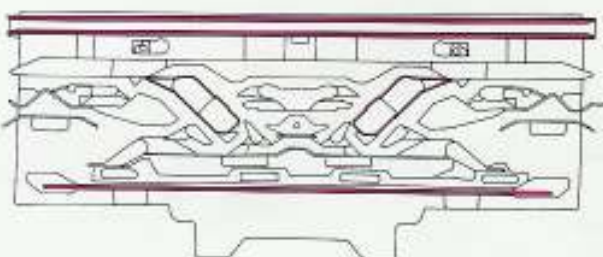
Cleaning and oiling is the key keeping your machine in good condition and for smooth knitting

* Brush away any dust and lint on the Needle Position Indicator.

* Wipe the following parts with oiled cloth when you use the machine after it has not been used for a long time.



- Needle bed
- Butts of the needles
- Front and Rear rails of the needle bed
- Underside of the carriage (- part of the illustration as below)

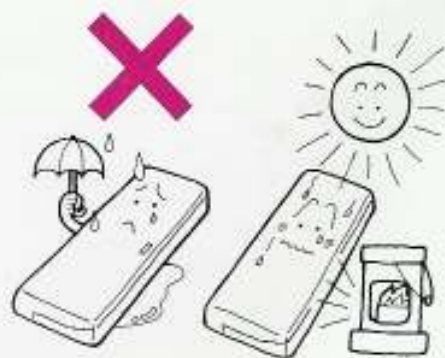


* Do not put oil directly onto the machine.

* Wipe the plastic parts with soft cloth using neutral detergents solution.

* Do not use alcohol, benzine, thinners or petrol.

* Do not leave the machine in a location near heat sources, nor in a place subjected to direct sunlight, excessive dust or moisture.



* When you use the machine again after you left it for a long time, knit 20 ~ 30 rows with old yarn to clean off any dirty oil.