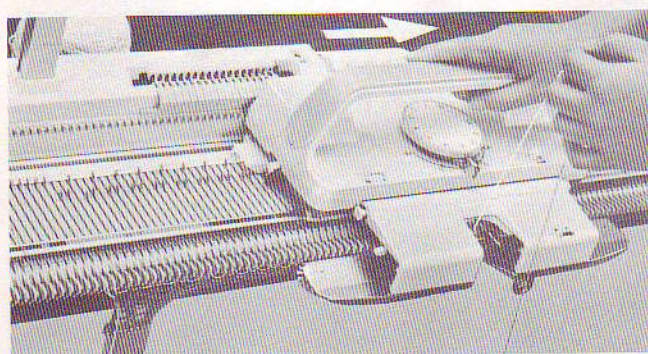
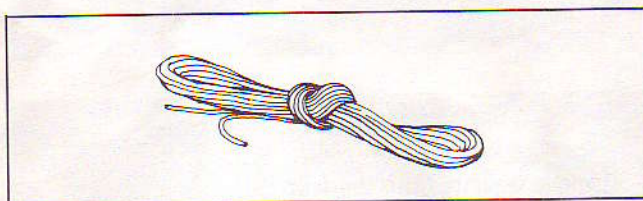
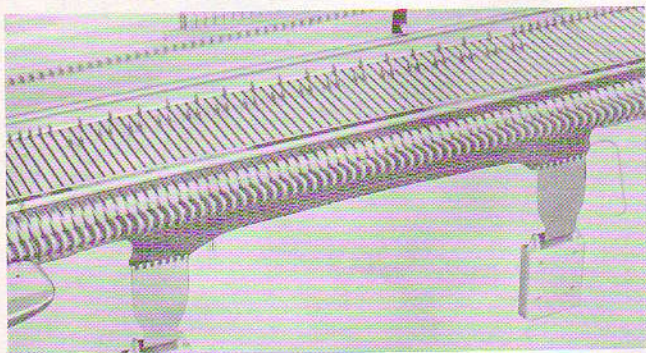


BASIC TECHNIQUES

Mock Rib, Increase, Decrease, and Cast off instructed in this section are most basic and frequently used in knitting a garment.

Practice those techniques following instructions given for each technique till you are fully convinced of.

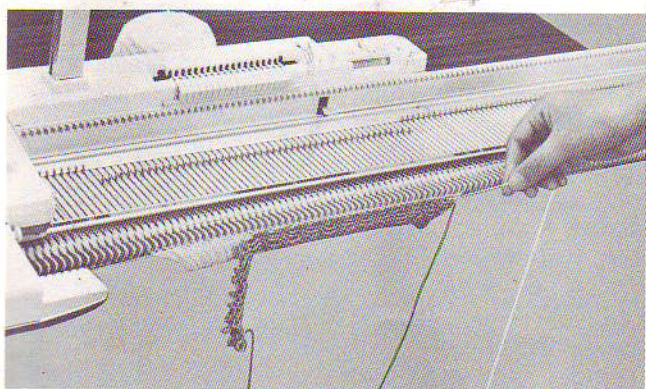
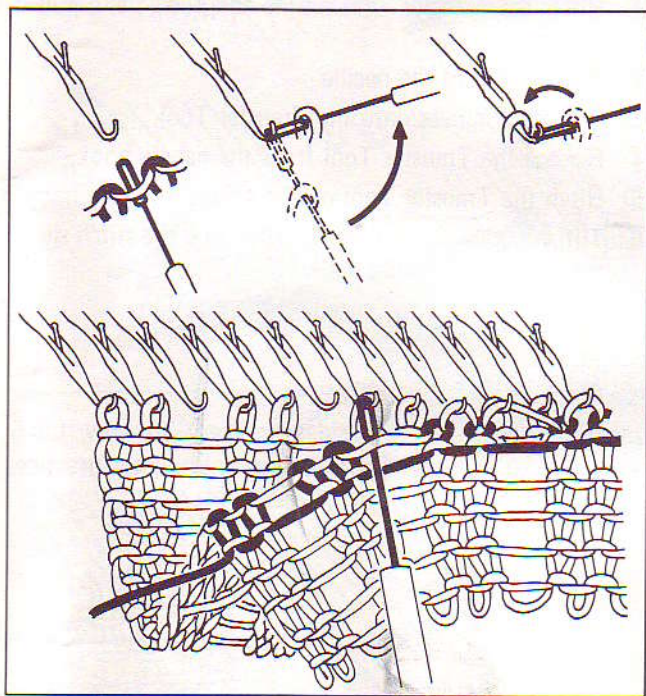
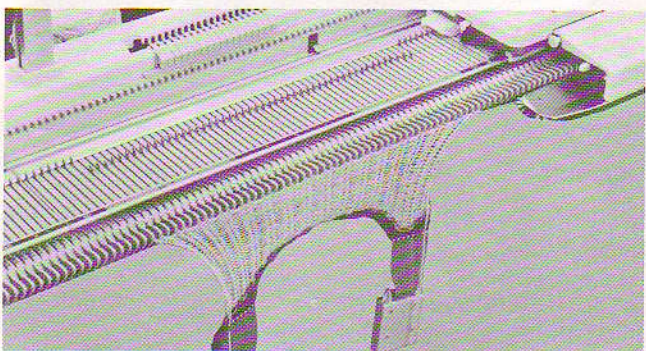
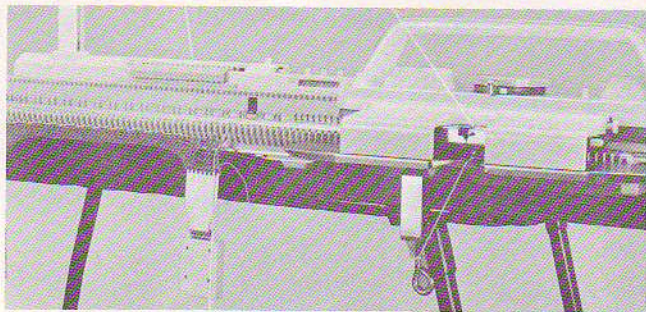


Mock Rib

Prepare a little amount of waste yarn.

1. Referring to page 13, cast on 50 stitches with the waste yarn, and knit several rows in stockinet. Then cut the yarn and remove it from the Auto-Tension.
2. Using the 2/1 edge of a Needle Pusher, push every 3rd needle starting from 3rd needle from the edge to D position.
3. Push the same needles back to A position. The stitches on those needles will drop off.
4. Take a Ravel Cord out from the Accessory Box, and set it in the Yarn Feeder ①.
5. While holding the Cord lightly so as it runs out freely, and move the Carriage slowly to knit 1 row. Remove the Cord from the Yarn Feeder.

It is recommended to cast on the number of stitches divisible by 3 plus 2 for working the mock rib.



6. Release the main yarn from the Yarn Clip and place it in the Yarn Feeder ①.

Fasten the yarn end at the Clamp screw grip.

7. Set the Stitch Dial 3 numbers lower than the original number.

Set the Cam Lever at A.

Take up the slack on the yarn and knit the required number of rows.

FOR PRACTICE

With the Stitch Dial at 4, knit 30 rows.

Release the yarn end from the Clamp screw grip.

8. Align the needles, previously pushed back to A position, in B position.

9. Insert a one-prong Transfer Tool into the loop above the Ravel Cord, and replace the stitch onto the corresponding needle as shown.

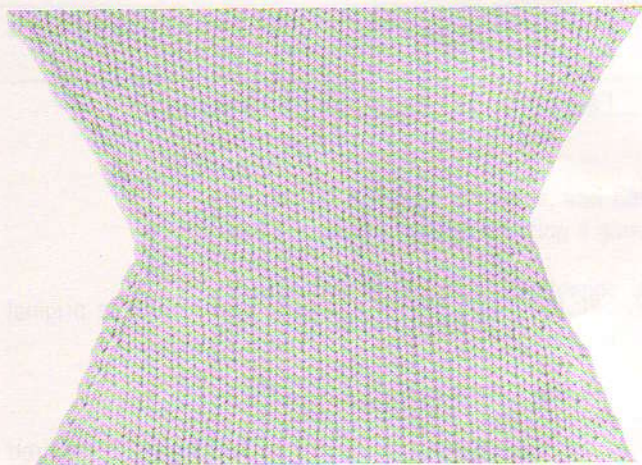
10. Change the Stitch Dial to 7 and knit 1 row.

Pull out the Ravel Cord, and the waste knitting will be separated.

At this step, the Mock Rib is completed.

FOR PRACTICE

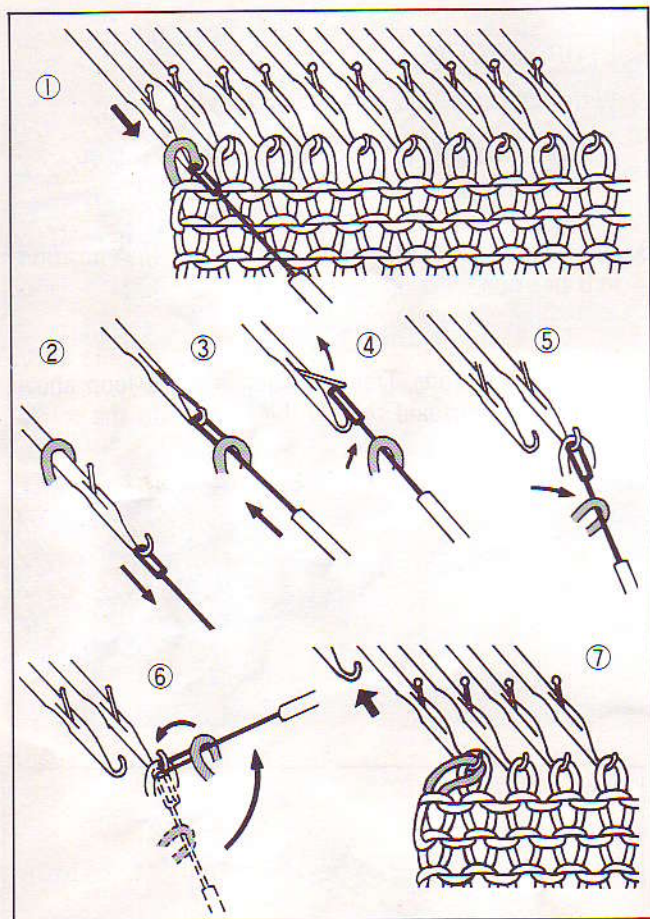
Knit 5 rows more before stepping forward to practice next technique.



Decrease and Increase of single stitch

Decrease and increase of single stitch are most frequently used for shaping a garment.

For practice, follow the instructions given under the same title.



Decrease

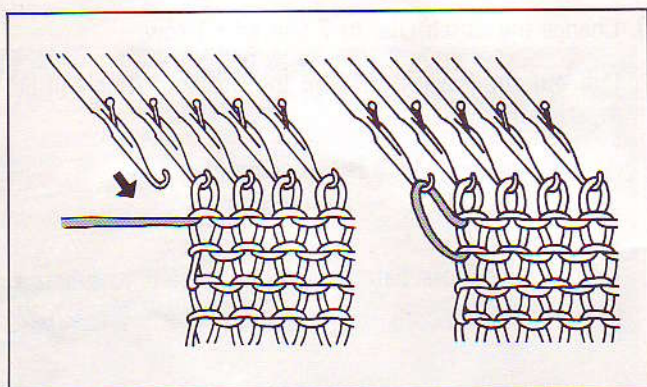
Decrease of single stitch can be done on both sides at a time on the same row.

Using a Transfer Tool, transfer the end stitch onto its adjacent needle in the following manner.

- ① Hitch the Transfer Tool on the end needle and, pull it forward.
- ② Push backward the needle.
- ③ The stitch moves onto the Transfer Tool.
- ④ Release the Transfer Tool from the needle hook.
- ⑤ Hitch the Transfer Tool on the adjacent needle hook.
- ⑥ Tilt the grip of the Transfer Tool, and the stitch slides down into the needle hook.
- ⑦ Push back the empty needle to A position.

FOR PRACTICE

Decrease a stitch at both sides on every 3rd row, for 5 times, and knit another 5 rows before finishing the practice.



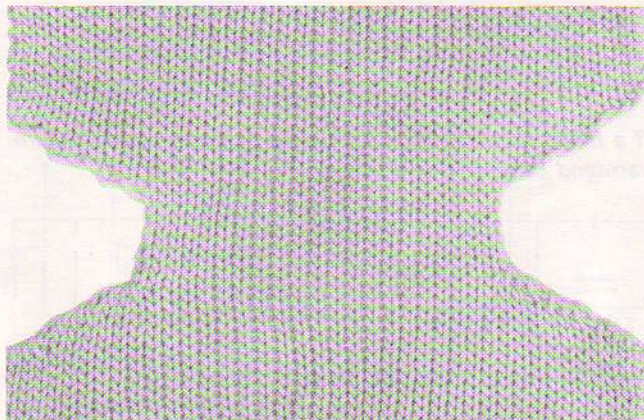
Increase

Push one empty needle, next to the end needle, at the Carriage side to B position, before knitting the next row.

FOR PRACTICE

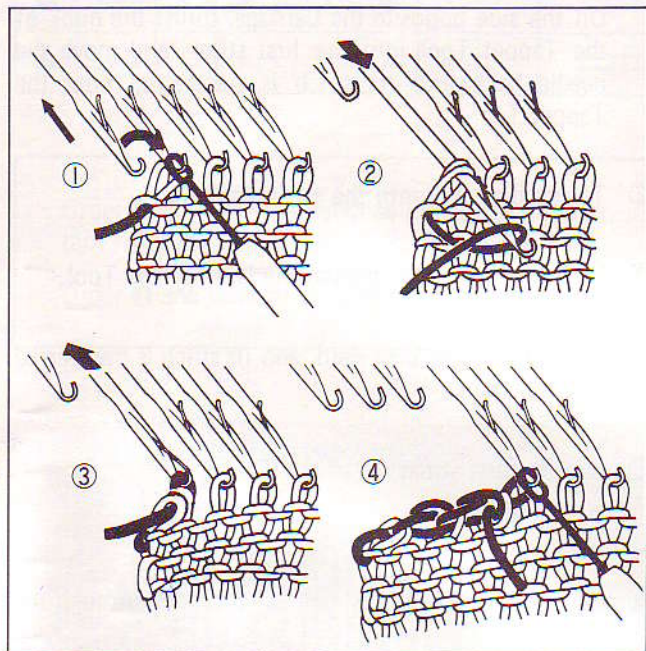
Increase at the beginning of the next and following alternate rows. Repeat every 3rd row 5 times.

Knit another 5 rows before finishing the practice.



Decrease and Increase of multiple stitches

Work only on the Carriage side.

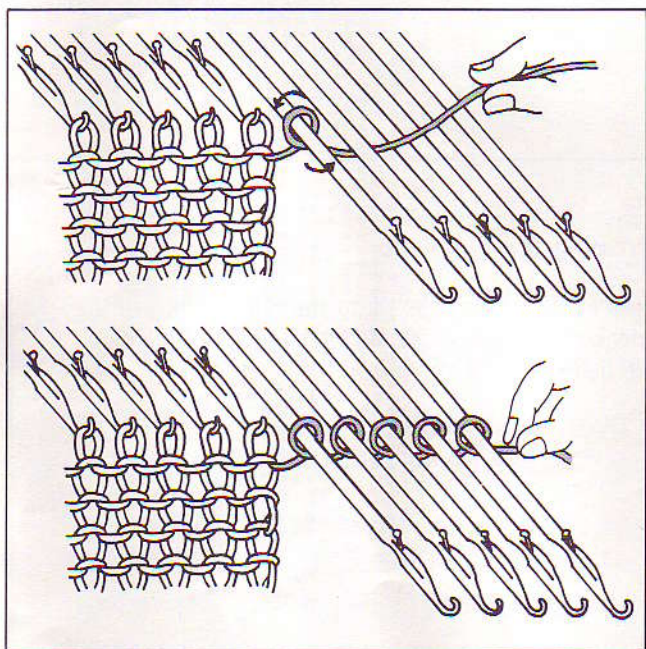


Decrease

- ① On the Carriage side, using a Transfer Tool, transfer end stitch to its adjacent needle.
Push back the empty needle to A position.
- ② Push the second needle toward D position till both stitches move over the latch.
Wind the yarn around the needle hook as shown.
- ③ Holding the yarn downward, push the needle back to B position.
Two stitches on the needle slip off and interloop with the yarn.
Repeat the above steps.
- ④ Place the last decreased stitch onto its adjacent needle.

FOR PRACTICE

Decrease 4 stitches at the beginning of the next 4 rows, and knit 10 rows.



Increase

- (1) Push required number of empty needles to D position at the Carriage side.
- (2) Pull down yarn through the Yarn Feeder.
- (3) Wind the yarn around the needles in D position in the anti-clockwise direction*.
Slide the each loop on the needles backward with your finger.
- * When the Carriage is at the left side of the fabric, wind the yarn around the needles in the clockwise direction.
- (4) Take up slack on the yarn and continue to knit with the Russel Lever at II position.

FOR PRACTICE

Increase 4 stitches at the beginning of the next 4 rows, and knit 10 rows.

Cast off

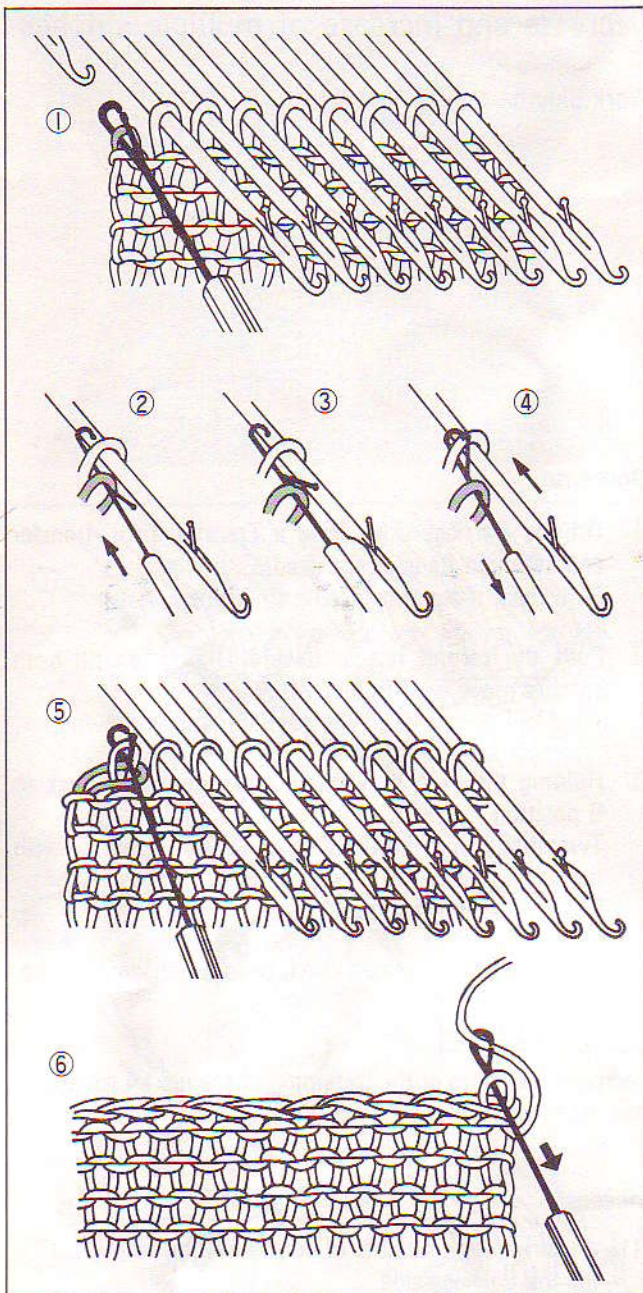
Knit the cast off row with the Stitch Dial 3 numbers higher.

If a thick yarn is used, knit the cast off row with a medium yarn and the Stitch Dial at 10.

FOR PRACTICE

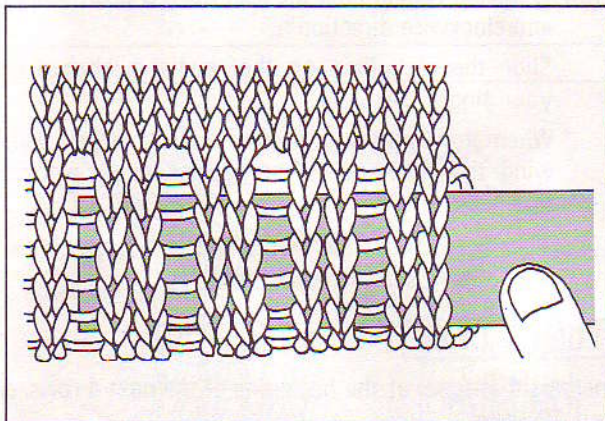
Knit the cast off row with the Stitch Dial at 10.

- ① Push the needles to D position.
On the side opposite the Carriage, thrust the hook of the Tappet Tool into the first stitch, and move the needle backward. Its stitch is transferred onto the Tappet Tool.
- ② Thrust the hook into the second stitch.
- ③ Slide the first stitch behind the latch of the Tool.
- ④ Move the needle backward, and its stitch is transferred onto the hook.
- ⑤ Slip the first stitch off of the Tappet Tool.
Repeat steps ② – ⑤
- ⑥ Close the last stitch by guiding the yarn through the stitch with the Tool.

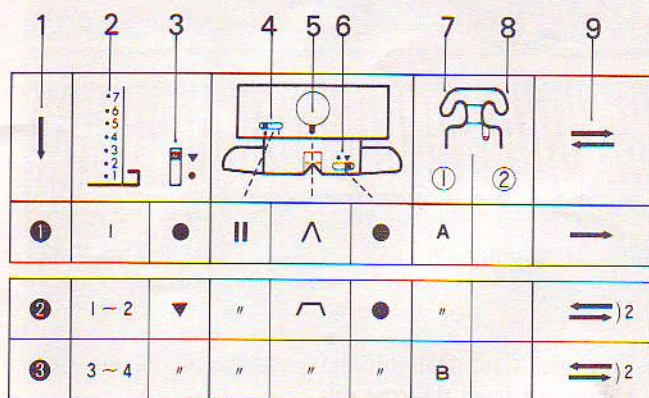


Pressing the mock rib

Insert a ruler-like object into the side opening of the mock rib, and while pulling the fabric, press the mock rib lightly with a steam iron.



GETTING TO KNOW ABOUT PATTERN KNITTING



Order ① is preparatory step to memorize the pattern from the Punch Card.

Order ② and onward for pattern knitting.

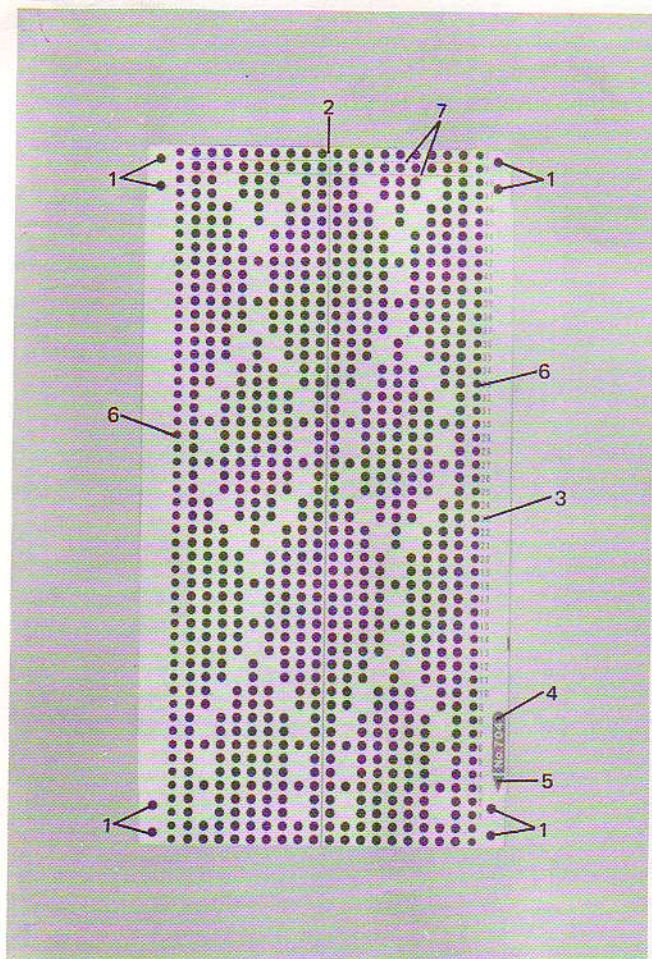
Operation Table

On each pattern stitch, the Operation Table as shown opposite is given to instruct the settings and operation of the machine.

- 1 — Order of operation
- 2 — Card Memory Number, its setting and progress
- 3 — Card Lever
- 4 — Russel Lever
- 5 — Cam Lever
- 6 — Cast-on Lever
- 7 — Yarn Feeder ①
- 8 — Yarn Feeder ②

A, B: yarns in the Yarn Feeder.

- 9 — Carriage direction:
numbers beside the arrows indicates number of rows to be knitted.



Punch Card

Five sheets of Punch Card are included with the machine.

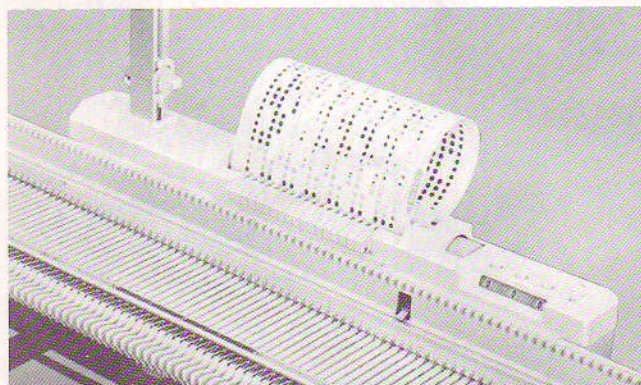
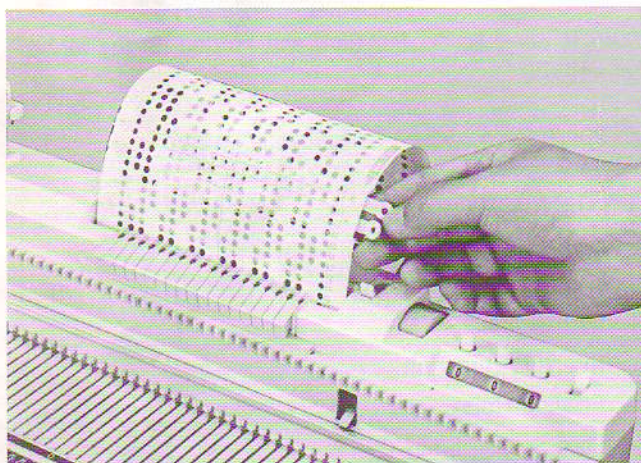
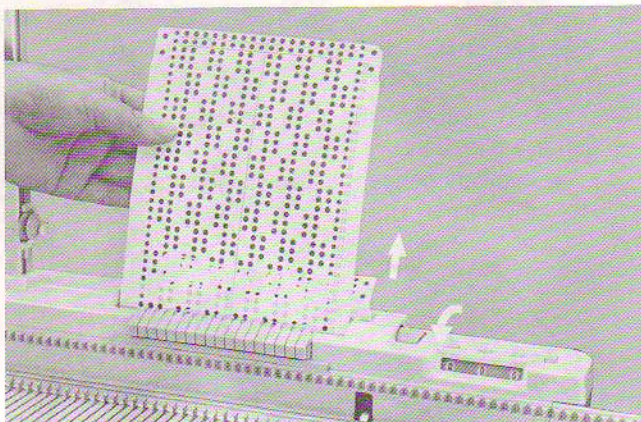
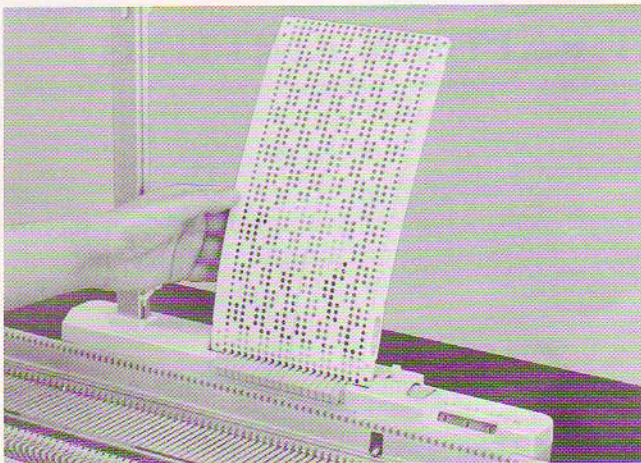
Pattern is punched on the Card and knitted on the fabric automatically.

Each Punch Card carries the following notations:

- 1 — Snapping Holes
- 2 — Centre Line
- 3 — Card Memory Number
- 4 — Card Number
- 5 — Inserting Direction
- 6 — Feeding Holes
- 7 — Card Setting Lines

DO NOT EXPOSE THE CARD TO DIRECT SUNLIGHT or HEATS, the Card will be deformed.

Do not fold the Punch Card.

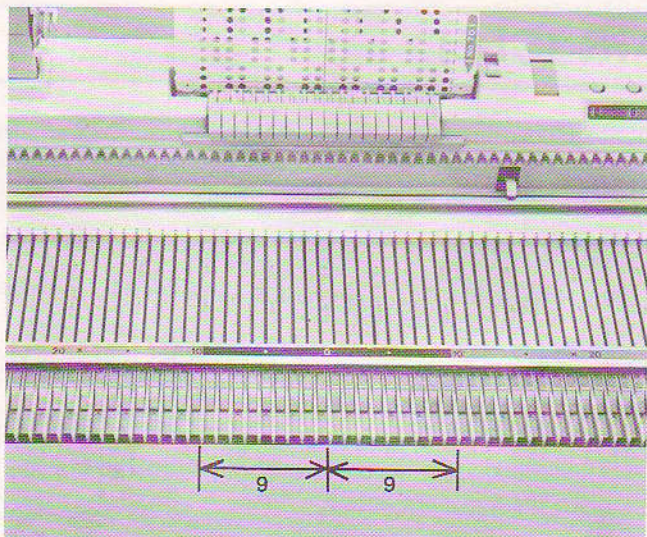


Setting Punch Card

1. Insert the bottom end of a Punch Card horizontally in the slit at the centre of the needle bed.
2. Turn the Card Dial till the bottom end of the Card comes out from the rear side.
3. Further advance the Punch Card, and lap the top end over the bottom end to join them together with the Card Snaps as shown.



4. By turning the Card Dial, set the Card Memory Number "1" on the Punch Card at the position flush with the front edge of the slit.
5. Lock the Card by setting the Card Lever at ● mark.



Punch Card and pattern positions

A pattern on the Punch Card is 18-stitch wide and knitted repeatedly at the predetermined positions, which are marked on the needle bed with alternate colourings.

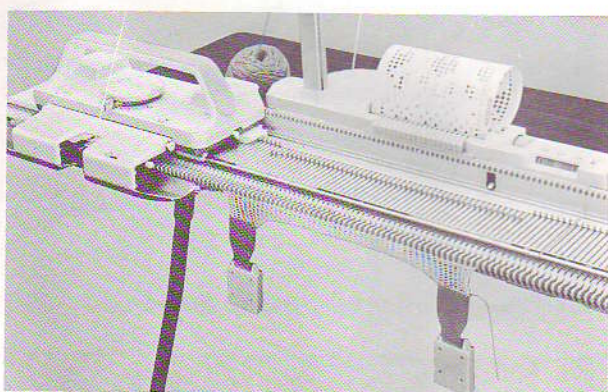
In each 18-needle width on the needle bed, partitioned with alternate colourings, "X" mark is given to indicate that the needle at the mark knits the center of the pattern on the Punch Card.

Stitch Type Punch Card	KNIT-IN	TUCK	SLIP
No.701	○		○
No.702	○	○	○
No.703	○	○	○
No.704		○	○
No.705	○		

A Card for various stitch types

According to the Cam Lever setting, each Punch Card can knit various stitch types as shown in the table opposite.

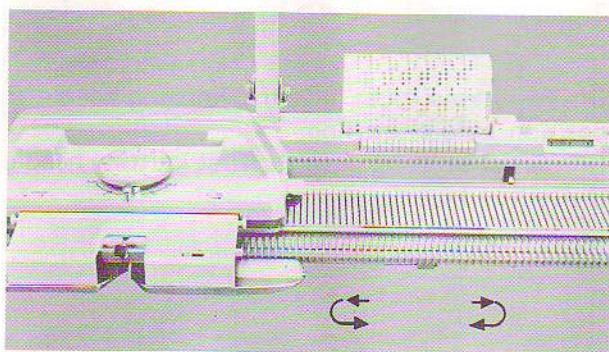
Various pattern stitches knitted with each Punch Card are shown on the separate pattern sheet.



For success in pattern knitting

Before starting to knit pattern stitches, cast on and knit 9-10 rows in stockinet.

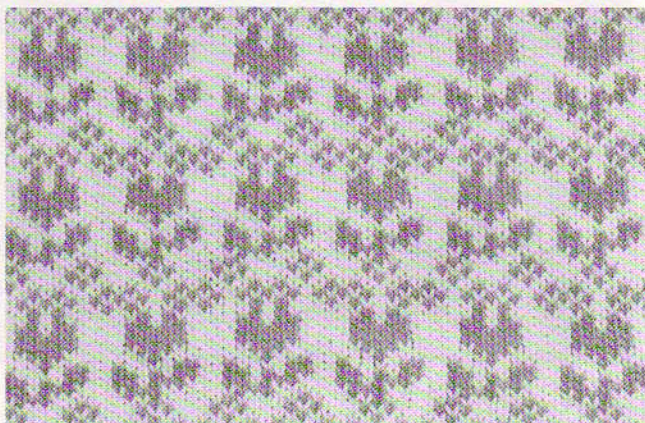
Hang the Claw Weights on both ends of the fabric, and move them up as knitting progresses.



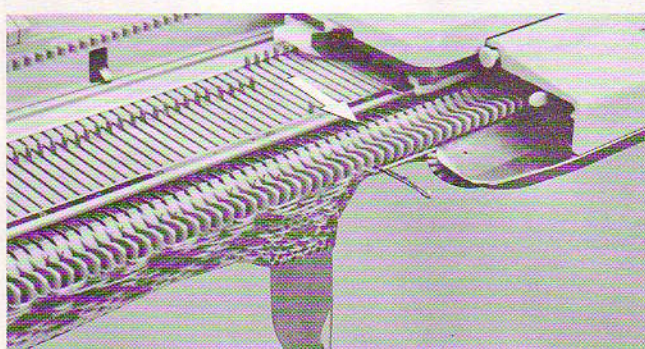
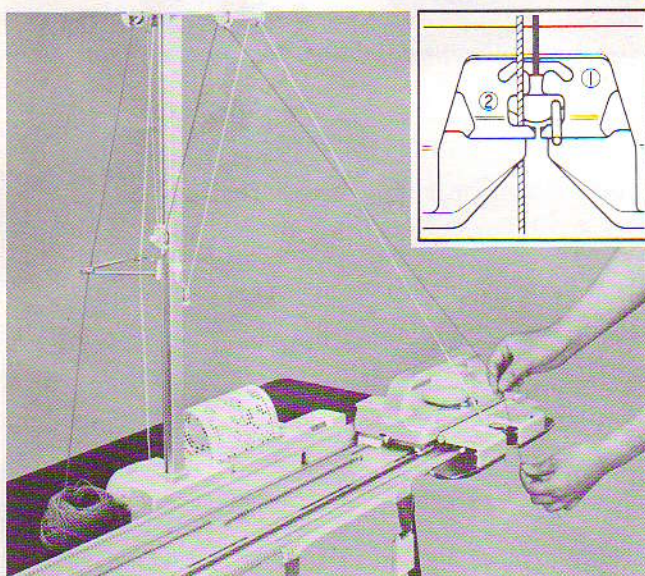
Be sure to move the Carriage past the Punch Card on every row in order to memorize the pattern correctly.

Move the Carriage at an even speed.

KNIT-IN (FAIR ISLE)



①	I	●	II	Λ	●	A
②	I ~	▼	"	Λ	●	B



KNIT-IN pattern is formed with two yarns of different colours — one is for ground yarn, and the other for contrast yarn to be knitted by the selected needles according to the Punch Card.

The photograph opposite shows the knit-in pattern knitted with a Punch Card No.705.

Knit the Knit-in pattern in the following procedure.

- Thread two yarns (A, B.) through the Auto-Tension, and place them in the Clips.
- With a yarn (A), cast on and knit several rows with the Cam Lever at Λ mark.

Above two steps are not required if a knitted fabric is on the needles.

- (1) Insert a Punch Card, and lock at Card Memory Number "1".
 - (2) As required in the Order ① of the Operation Table, place the yarn (A) in the Yarn Feeder ①.
 - (3) Knit 1 row from left to right with the Cam Lever at Λ mark. TO MEMORIZE PATTERN.
 - (4) Change the settings of the Carriage as required in the Order ② of the Operation Table.
 - Set the Card Lever at ▼ mark.
 - Place the second yarn (B) in the Yarn Feeder ②.
 - Set the Cam Lever at Λ mark.
 - (5) Push the first needle to D position.
 - (6) Knit 1 row.
- Repeat (5) and (6).

On every row, push the first knitting needle to D position before knitting.
(In partial knitting push the first knitting needle to C position.)

SLIP STITCH



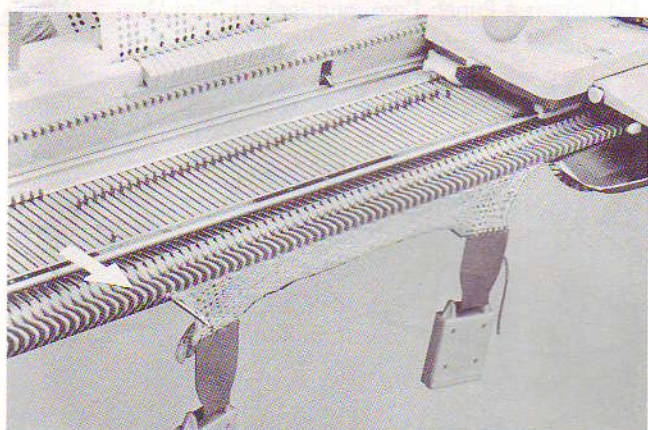
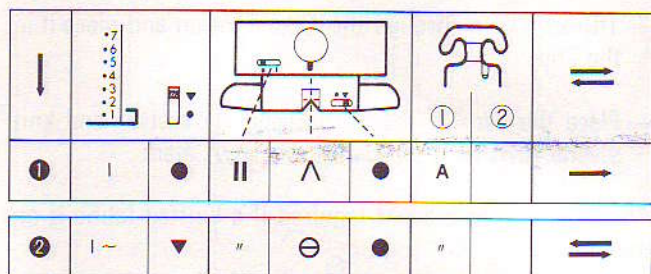
SLIP STITCH is formed by a loop below the needle and stitch knitted on the needle.

The photograph opposite shows the slip stitch pattern knitted with a Punch Card No.702.

Knit the slip stitch pattern in the following procedure.

- Thread a yarn through the Atuo-Tension and place it in the Clip.
- Place the yarn in the Yarn Feeder ①, cast on and knit several rows with the Cam Lever at Λ mark.

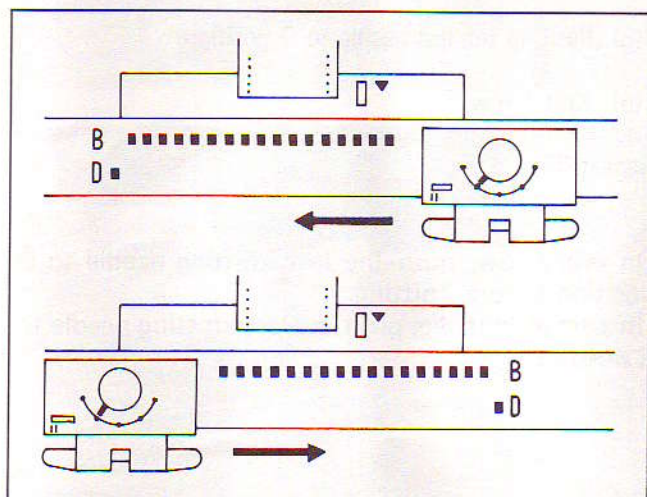
Above two steps are not required if a knitted fabric is on the needles.



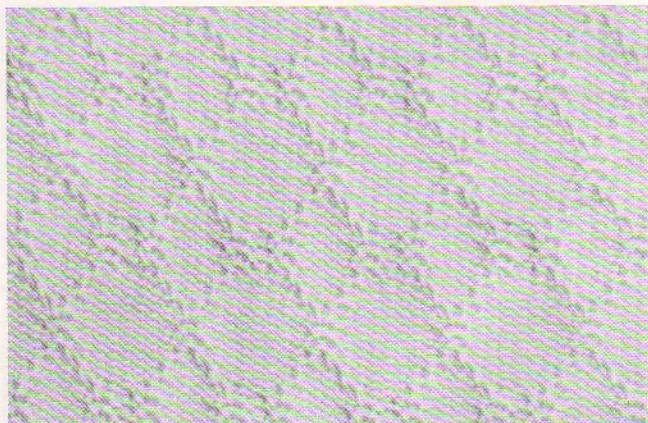
- (1) Insert a Punch Card, and lock at Card Memory Number "1".
- (2) As required in the Order ① of the Operation Table, place the yarn (A) in the Yarn Feeder ①.
- (3) Knit 1 row from left to right with the Cam Lever at Λ mark. TO MEMORIZE PATTERN.
- (4) Change the settings of the Carriage as required in the Order ② of the Operation Table.
 - Set the Cam Lever at \ominus mark.
 - Set the Card Lever at ▼ mark.
- (5) Push the last needle to D position.
- (6) Knit 1 row.

Repeat (5) and (6).

On every row, push the last knitting needle to D position before knitting.
(In partial knitting, push the last knitting needle to C position.)



TUCK STITCH






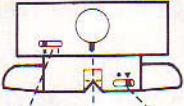

TUCK STITCH is formed by the loops held in the needle hook, and a new loop which knits those held loops together.

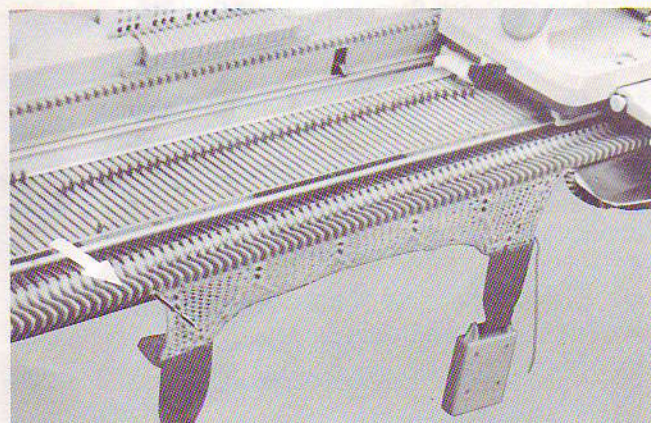
The photograph opposite shows the tuck stitch pattern knitted with the Punch Card No.704.

Knit the tuck stitch pattern in the following procedure.

- Thread a yarn through the Auto-Tension and place it in the Clip.
- Place the yarn in the Yarn Feeder ①, cast on and knit several rows with the Cam Lever at \wedge mark.

Above two steps are not required if a knitted fabric is on the needles.

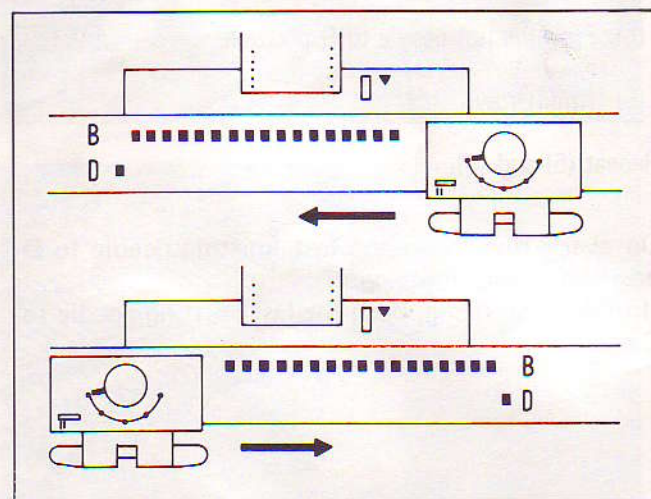
							
①		●		Λ	●	A	→
②		▼	η	∩	●	η	↔



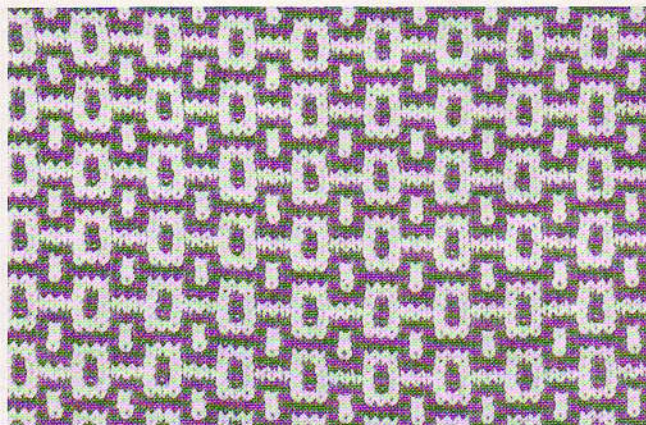
- (1) Insert a Punch Card, and lock at Card Memory Number "1".
- (2) As required in the Order ① of the Operation Table. Place the yarn in the Yarn Feeder ①.
- (3) Knit from left to right with the Cam Lever at \wedge mark. TO MEMORIZE THE PATTERN.
- (4) Change the settings of the Carriage as required in Order ② of the Operation Table.
 - Set the Card Lever at ▼ mark.
 - Set the Cam Lever at \frown mark.
- (5) Push up the last needle to D position.
- (6) Knit 1 row.

Repeat (5) and (6).

On every row, push the last knitting needle to D position before knitting.
(In partial knitting, push the last knitting needle to C position.)



TUCK / SLIP STITCH IN COLOURS

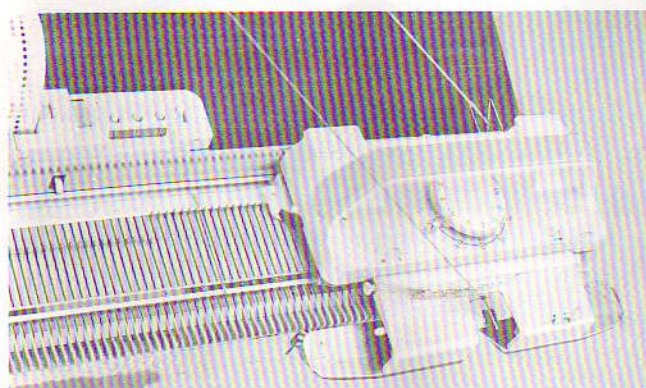
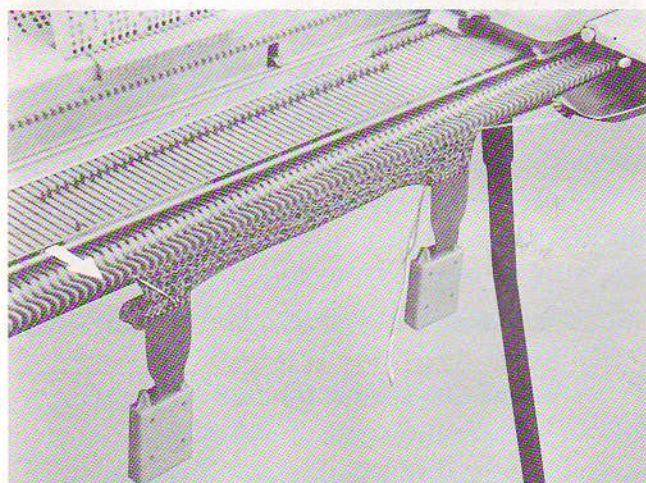


Two yarns are knitted in the tuck or slip stitch pattern, and the different pattern effect will be knitted on the fabric.

The photograph opposite shows the tuck stitch pattern in two colours knitted with a Punch Card No.703.

By setting the Cam Lever either at \wedge or \ominus mark, you can knit the pattern in tuck stitch or slip stitch in the same procedure set forth below.

①	I	●	II	\wedge	●	A		
②	1 ~ 2	▼	"	\wedge / \ominus	●	"		
③	3 ~ 4	"	"	"	"	B		



— Thread two yarns (A, B) through the Auto-Tension, and place them in the Clip.

— Place the yarn (A) in the Yarn Feeder (1), cast on and knit several rows with the Cam Lever at \wedge mark.

Above two steps are not required if a knitted fabric is on the needles.

(1) Insert a Punch Card, and lock at Card Memory Number "1".

(2) As required in the Order ① of the Operation Table, place the yarn (A) in the Yarn Feeder ①.

(3) Knit from left to right with the Cam Lever at \wedge mark. TO MEMORIZE THE PATTERN.

(4) Change the settings of the Carriage as required in the Order ② of the Operation Table.

— Set the Card Lever at ▼ mark.

— Set the Cam Lever at \wedge mark or \ominus mark.

(5) Knit two rows with the yarn (A), pushing up the last needle to D position on every row.

(6) Exchange the yarn (A) for (B). Place the Yarn (A) in the Yarn Rest.

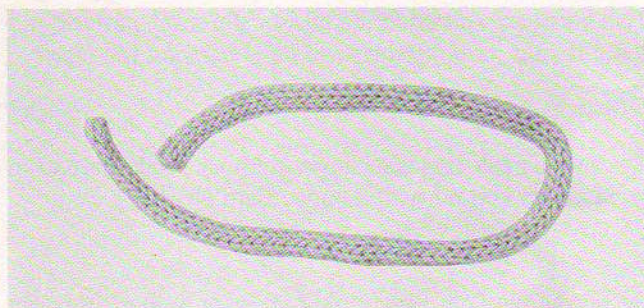
(7) Knit two rows.

Repeat steps (5) — (7).

On every row, push the last knitting needle to D position before knitting.

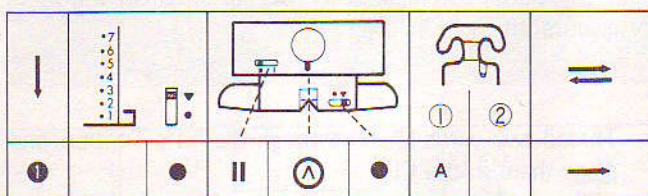
(In partial knitting, push the last knitting needle to C position.)

CORD KNITTING




This function is very useful to knit a cord, and only used for knitting a cord.

No Punch Card is necessary.



Knit the cord in the following procedure.

— Thread a yarn through the Auto-Tension and place it in the Clip.

- (1) Place the Carriage at the right side on the needle bed.
- (2) At the centre of the needle bed, push up 4–5 needles to D position.
- (3) Pull down the yarn from the Auto-Tension, and wind it around each needle as shown.
Slide the each loop on the needle backward.
- (4) Place the yarn in the Yarn Feeder, and pull the yarn toward the yarn ball at the back of the Tension Post.
- (5) Set the Carriage as required in the Operation Table.
— Set the Russel Lever at II.
— Set the Cam Lever at  mark.
- (6) After knitting several rows, hang weight on the cord.
Knit for required length.
- (7) Finish knitting with the Carriage at the left side.
- (8) Cut the yarn leaving 10cm. and cast off the stitches with a Tapestry needle as shown.

