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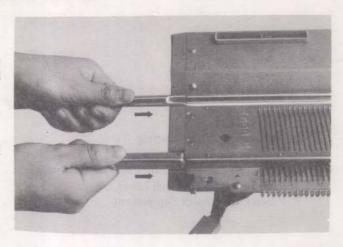
# HOW TO USE LACE CARRIAGE

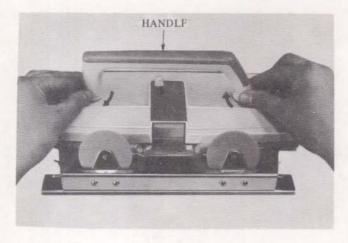
## PREPARATION BEFORE KNITTING

Install both right and left extension rails to machine by inserting each rail end to the holder under needle bed as far as it will go.

For easier installation, insert two rails at the same time to front and back holders.

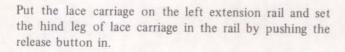
To take the extension off machine, just pull it out toward you.



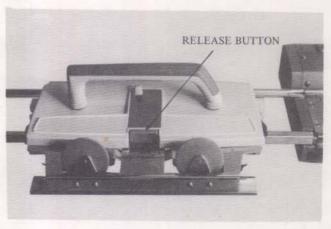


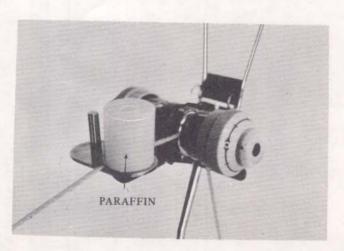
4

Install the handle by fastening two screws at the same time to the direction of an arrow head.









4

Put the paraffin on the take-up when you use the lace carriage.

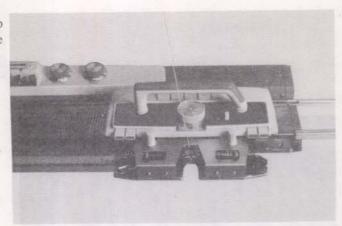
Set the stitch adjustor dial basing on the following instructions:

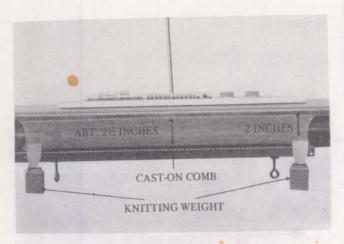
THICKNESS OF YARN	Three Ply	Two Ply	Fine Yarn	Lace Yarn	Summer Yarn
NUMBER OF DIAL	5 - 6	4 - 5	3 - 4	3 - 4	(Thick) (Fine) 4-5 3-4

In case of any other needle selections than 1/1, the loop can be transfered at the smaller number of dial by one than the number of dial listed above.

#### START KNITTING

Knit the plain stitches about 2 inches long. Slide the main carriage up to the right hand side. (Each of buttons in the main carriage is set for plain stitch)



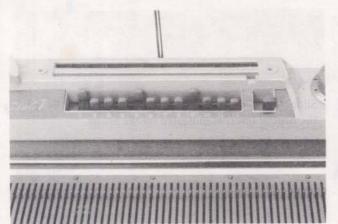


4

Hang the cast-on comb equally on the edge of garment where is about 2½ down from the sinker hooks. After you knit garment by 12 inches long, put the cast-on comb back to the original position (2½ inches down from the sinker hooks).

Hang the knitting weights on the garment where is 2 inches down from the sinker hooks, and put them back to the original position after you knit by 6 inches long. You can knit the close stitches without knitting weights in the fine yarn.

The garment comes down as you knit longer. Be careful not to touch the garment, cast-on comb and knitting weight with your foot or anything else.

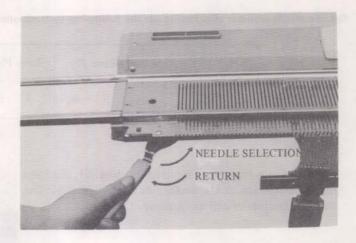


4

Set the zigzag dial at 1 and also set the pattern selector buttons with the number of 1, 5 and 9.

The loop can not be transfered if two neighbouring needles are selected at the same time. Make it sure to push the pattern selector buttons more every other piece.

Turn the needle selector lever as far as it will go and return it to the original position completely.



PUSH BACK TO B POSITION

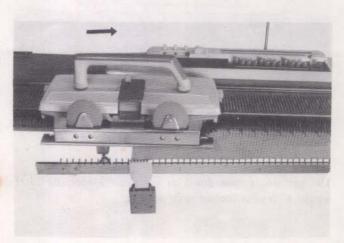
When any needle out of last two needles at both ends of knitted garment is selected, it must be pushed back to B position.

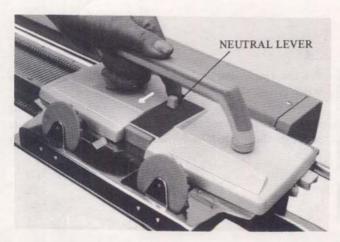
By sliding slowly the lace carriage over the extension from left to right, the loop on the selected needle is transfered to the next needle on left hand side.

(The loops are transferred to the opposite direction where the carriage goes).

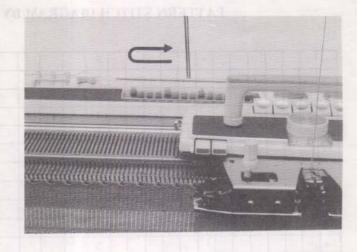
The reasonable speed to slide the lace carriage from end to end in the needle bed is about two seconds.

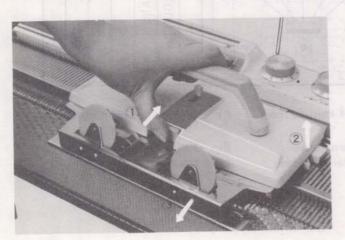
Slide the lace carriage very carefully over the extension to the needle bed lest the hind leg of lace carriage should come off the needle bed.





Slide the lace carriage back without knitting by pulling the neutral lever, as indicated by the arrow. Start to slide the main carriage and knit two rows. The lace pattern stitches are available by repeating the steps abovementioned.





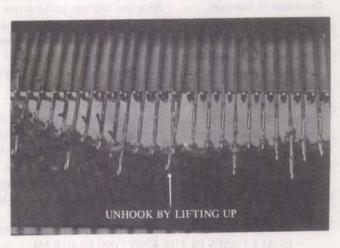
# WHEN THE LACE CARRIAGE STICKS WHILE KNITTING

4

When the lace carriage gets stuck on the way of knitting, try the adjustment as follows:

- 1. Push the release button in.
- 2. Lift the rear side of carriage upward.
- 3 Remove the carriage off the needle bed by pulling it aslant toward the direction where it will go.

If there are needles tangled one above another, unhook them by lifting the top of needle upward.



## PATTERN STITCH DIAGRAM BY USING LACE CARRIAGE

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A: Row number of punch card pattern

D: Direction of lace carriage

G: Zigzag dial

B: Number of knitting row

C: Direction of main carriage

E: Yarn at Yarn Feeder

F: Fair isle knob

H: Pattern Selector Button

: Needle Selector Lever

# The above descriptions mean as follows:

**Row Number of Punch** 

Card Pattern..... Numbers indicated at the right edge of the punch card.

Number of Knitting Row.. Indicate the order of knitting.

Direction of Carriage . . . . Slide the carriage in the arrow headed direction.

indicates to knit for one row, indicates to knit for two rows.

Direction of lace carriage . . Slide the carriage in the arrow headed direction.Yarn at Yarn Feeder. . . . . A or B indicates the kind of yarn at yarn feeder.

Fair Isle Knob . . . . . Set the knob at PLAIN.

Zigzag Dial..... Set the dial at the number in the frame.

Pattern Selector Button... Number of the pattern selector button indicates the state that the button is set.

The blank column indicates the state of the button returned to an original position.

When the punch card is used, these buttons should never be operated.

Needle Selector Lever . . . . Arrow mark indicates turning of the needle selector lever. The blank column

indicates knitting done with the needle selector lever unturned.

THE MAIN CARRIAGE SHOULD BE STARTED FROM THE RIGHT IN ALL CASES IN THE KNITTING DIAGRAM.

## LACE PATTERN STITCH

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A: Row number of punch card pattern

D: Direction of lace carriage

G: Zigzag dial

B: Number of knitting row

E: Yarn at Yarn Feeder

H: Pattern Selector Button

C: Direction of main carriage

F: Fair isle knob

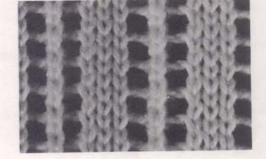
I: Needle Selector Lever

Manual Needle Selcting.

Yarn Used: Three ply yarn (Plain yarn feeder)

Stitch Adjustor Dial: 5 - 6

\* Use the Cast-on Comb.



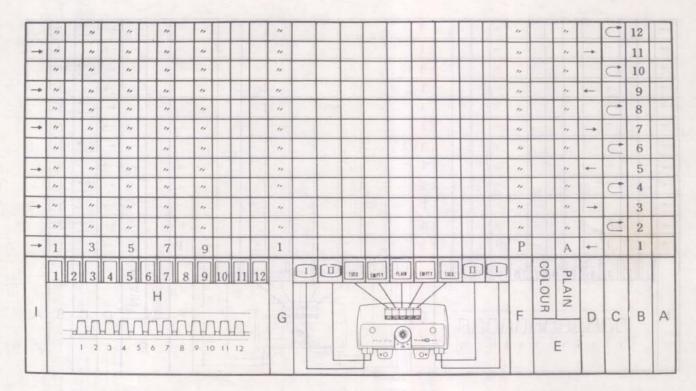
#### **HOW TO KNIT:**

- 1. The main carriage is set for plain stitch.
- 2. Set the pattern selector buttons 3 and 9.
- 3. Set the zigzag dial at 1.
- 4. Turn the needle selector lever as far as it will go and return it to the original position completely. (If either the first or the second needle at both ends of knitted garment are selected, they should be pushed back to B position.)
- 5. Slide the lace carriage slowly from left to right.
- 6. Set the zigzag dial at 3.
- 7. Turn the needle selector lever as far as it will go and return it to the original position completely.
- 8. Slide the lace carriage slowly from right to left.
- 9. Knit for two rows with main carriage.

Repeat the above steps 3 - 9 to knit the required number of rows.



## LACE PATTERN STITCH



A: Row number of punch card pattern

D: Direction of lace carriage

G: Zigzag dial

B: Number of knitting row

E: Yarn at Yarn Feeder

H: Pattern Selector Button

C: Direction of main carriage

F: Fair isle knob

I: Needle Selector Lever

## Manual Needle Selection

Yarn Used: Three ply yarn (Plain yarn feeder) Stitch Adjustor Dial . . . 5-6

\* Use the Cast-on Comb.

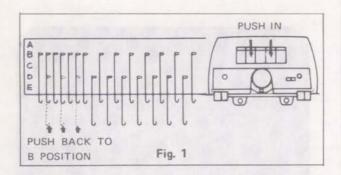
#### HOW TO KNIT:

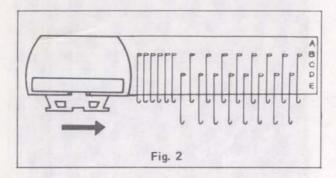
- 1. Carriage is set for plain stitch.
- 2. Set the pattern selector buttons 1,3,5,7 and 9.
- 3. Set the zigzag dial at 1.
- 4. Turn the needle selector lever as far as it will go and return it to the original position completely. (If either the first or the second needle at both ends of knitted garment are selected, they should be pushed back to B position.)
- 5. Slide the lace carriage slowly from right to left.
- 6. Knit two rows with main carriage.
- 7. Turn the needle selector lever as far as it will go and return it to the original position completely.
- 8. Slide the lace carriage slowly from left to right.
- 9. Knit two rows with main carriage.

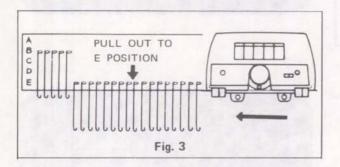


Repeat the steps 4 - 9 to knit the required number of row.

## PARTIAL KNITTING BY USING LACE CARRIAGE







- 1. Push the both empty buttons in.
- 2. Select needles according to the knitting diagram.
- 3. Return all needles not to be knitted opposite the carriage to B position. (Fig. 1)
- 4. Slide the lace carriage according to the direction of the knitting diagram. (Fig. 2)
- 5. Leave needles not to be knitted in B position and push needles to be knitted into E position, and knit one row with main carriage. (Fig. 3)
- Wrap knitting yarn from under onto the needle hook next to the last needle knitted, push needles to be knitted to E position and knit one row.
- Repeat steps 2 to 6 to knit the required number of rows.

## NOTE:

As the knitted garment is apt to decline, hang the cast-on comb and the knitting weight equally on it.

# PUNCH CARD PATTERN SUPPLEMENT

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A:Row number of punch card pattern E:Yarn at yarn feeder B:Number of knitting row F:Fair isle knob

C:Direction of carriage G:Needle selector lever

D:Direction of lace carriage

Knit changing the direction of lace carriage every 12 rows.

4 stitches-4 rows-one pattern

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A: Row number of punch card pattern E: Yarn at yarn feeder

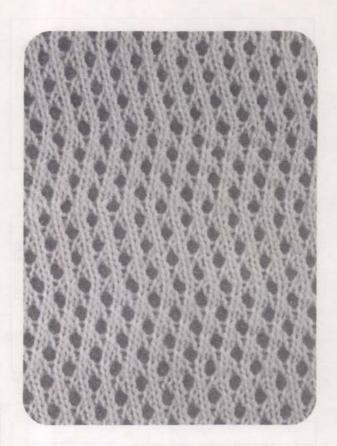
B: Number of knitting row F: Fair isle knob

C:Direction of carriage G:Needle selector lever

D:Direction of lace carriage

Knit changing the direction of lace carriage every 10 rows.

4 stitches-20 rows-one pattern





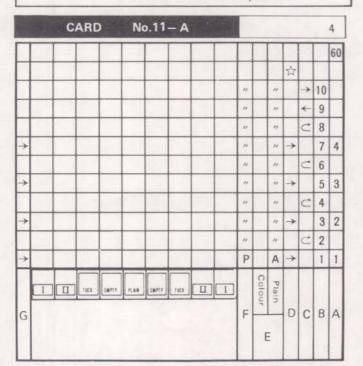
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A:Row number of punch card pattern E:Yarn at yarn feeder B:Number of knitting row F: Fair isle knob C:Direction of carriage G:Needle selector lever

D:Direction of lace carriage

Knit changing the direction of lace carriage every 20 rows.

12 stitches-20 rows-one pattern



A:Row number of punch card pattern E:Yarn at yarn feeder B:Number of knitting row F: Fair isle knob

C:Direction of carriage

G: Needle selector lever

D:Direction of lace carriage

6 stitches-10 rows-one pattern





