

# HOW TO USE LACE CARTRIDGE

## CONTENTS

HOW TO USE LACE CARTRIDGE	
TURNING POWER ON / MAIN MENU .....	1
CREATE NEW PATTERN(MAIN MENU 1) .....	2
TRANSFER SYMBOLS .....	2
HOW TO CREATE PATTERN .....	2
Create lace pattern .....	3
Create fine lace pattern .....	4
Erase pattern block .....	5
Key information screen .....	5
END CREATION(HELP MENU 1) .....	6
KNITTING CREATED PATTERN .....	6
ERASE PART OF PATTERN(HELP MENU 6) .....	7
LOAD STORED PATTERN(HELP MENU 7) .....	7
TRANSFER PATTERN(HELP MENU 9) .....	7
CHANGE PATTERN AREA(HELP MENU 10) .....	8
EDIT PATTERN /DELETE PATTERN(MAIN MENU 2/3) .....	8
CHECK DATA PATTERN(MAIN MENU 4) .....	8
PRINT OUT PATTERN(MAIN MENU 6) .....	8
IN THE FOLLOWING CASES	
WHEN YOU OPERATE LACE CARTRIDGE .....	9
WHEN YOU PROGRAM THE PATTERN ON THE KNITTING MACHINE .....	11

## HOW TO USE LACE CARTRIDGE

- Lace Cartridge is exclusive for creating lace and fine lace patterns.

Note: You cannot create tuck & lace pattern and woven lace pattern on this cartridge.

- The built in battery stores the created pattern data for 10 years.

- Please refer to the instruction book of Pattern Programming Device, on the general operation of the cartridge.

### TURNING POWER ON / MAIN MENU

- 1 Make sure that the power of the Pattern Programming Device and TV set are OFF. Fit the cartridge and turn power on. The following screen A or B appears.

#### A. When you use Lace Cartridge for the first time ....

##### - SELECT MODE -

1. MODE 1 (KH-940,950i)
2. MODE 2 (KH-930)
3. MODE 3 (KH-900)
4. MODE 4 (KH-965)

\* SELECT 1 - 4 = ■

Select the mode according to your knitting machine, and push STEP key.

In a few seconds, the Head screen appears and the mode setting is completed.


- ✦ Once setting the mode, you do not have to reset it, unless you use a different knitting machine. Therefore, after setting it once, the Head screen appears soon after turning power on.

- ✦ You can reset the mode by the "7.CHANGE MODE" on the MAIN MENU.

#### B. After setting the mode once ....


The Head screen appears, soon after turning power on.

- 2 Push STEP key. The following screen appears.

\*\* ON THE SCREEN WHICH HAS \*\*  
 \*\*  MARK AT LEFT BOTTOM, \*\*  
 \*\* PUSH 0 KEY. KEY \*\*  
 \*\* EXPLANATIONS APPEAR \*\*  
 \*\* ON THE SCREEN. \*\*

PUSH STEP KEY TO CONTINUE!!

#### KEY INFORMATION SCREEN

When you find  mark at the left bottom of the screen, you may push 0 key. The KEY INFORMATION SCREEN appears and you will find how each key works. (Refer to page 5 for details.)

- 3 Push STEP key. The MAIN MENU appears on the screen.

##### - MAIN MENU -

1. CREATE NEW PATTERN
2. EDIT PATTERN
3. DELETE PATTERN
4. CHECK DATA PATTERN
5. TRANSFER CREATED DATA
6. PRINT OUT PATTERN
7. CHANGE MODE(PAGE)

\* SELECT 1 - 7 = ■

## CREATE NEW PATTERN (MAIN MENU 1)

You can enter lace or fine lace pattern, with the Transfer Symbols.

### ● TRANSFER SYMBOLS

<ul style="list-style-type: none"> <li>• 8 Transfer Symbols are available, ○ △ ∨ ∕ \ △ ∩ ∘ .</li> <li>• The pattern area shows the purl side, or back of the fabric.</li> <li>• The pattern area without Transfer Symbols is knitted in stocking stitch.</li> </ul>						<b>FINE LACE PATTERN</b>	
<b>LACE PATTERN</b>							

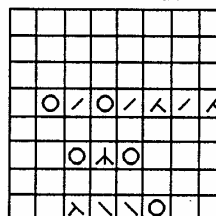
### ● HOW TO CREATE PATTERN

- Choose "1. CREATE NEW PATTERN" on the MAIN MENU.  
Enter the number of stitches and rows for creating pattern area.

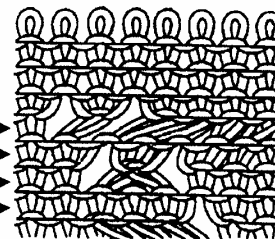
#### ✦ PATTERN AREA

- The pattern area includes the rows knitted in stocking stitch.
- You can use even numbers only, for entering rows.

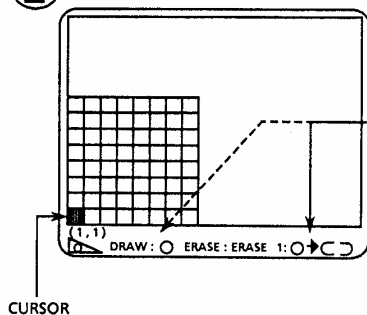
Ex. PATTERN AREA



8 stitches X 8 rows



- The Pattern creating screen appears.



#### ✦ PATTERN CREATING SCREEN

When pattern creating screen appears, you can enter lace pattern.

#### 1 key

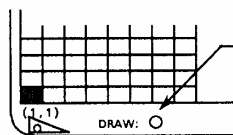
Pushing 1 key, the symbol changes and you can choose to enter a lace or fine lace pattern.

DRAW: ∩ .....You can enter lace pattern


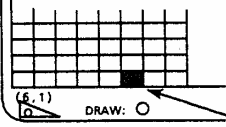

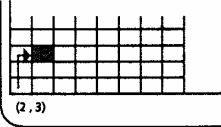
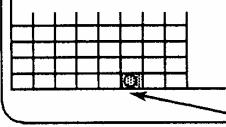
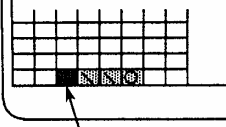

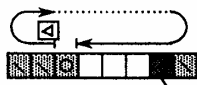
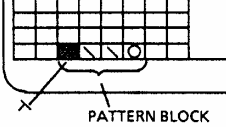
DRAW: ∘ ∩ .....You can enter fine lace pattern

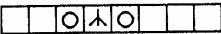
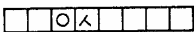
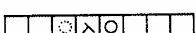
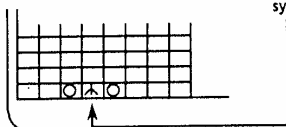
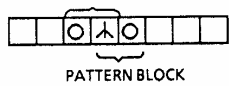
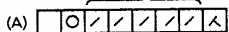
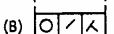
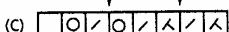
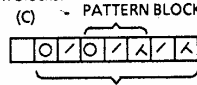
### 3 Create your original lace pattern or fine lace pattern, entering the transfer symbols.

#### Create lace pattern

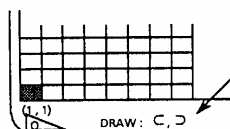


Check the Transfer Symbol. If "C" is shown, push 1 key and change it into "O".

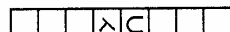

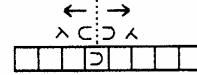
HOW TO CREATE LACE PATTERN	REMARKS
<p>(Ex.1) Fully-fashioned transfer</p>  <p>(1)</p>  <p>Cursor</p>	<ul style="list-style-type: none"> <li>• Moving the cursor You can move the cursor, with 8 cursor keys. But you can only move the cursor every other row. (ex. When you push  key)</li> </ul> 
<p>(2)</p>  <p>Cursor</p>	<ul style="list-style-type: none"> <li>• If you want to cancel the entered symbol "O" with red cursor .....</li> <li>Push HELP key.</li> </ul>
<p>(3)</p>  <p>Cursor</p>	<ul style="list-style-type: none"> <li>• Moving the cursor You can only move the cursor sideways, to the left or right. When you want to enter symbol "A", move the cursor to the right, and symbol "A" to the left.</li> </ul>  <ul style="list-style-type: none"> <li>• The cursor can be scrolled as shown below;</li> </ul>  <p>CURSOR</p> <ul style="list-style-type: none"> <li>• If you want to change the position of symbol "O" ...</li> <li>Push HELP key.</li> </ul>
<p>(4)</p>  <p>Cursor</p> <p>PATTERN BLOCK</p>	<p>Push DRAW key. The symbol "A" appears on the position of the cursor.</p> <p>◆ A series of these transfer symbols is called "PATTERN BLOCK".</p>

HOW TO CREATE LACE PATTERN	REMARKS
<p>(Ex.2) One needle holds three stitches</p>  <p>(1)  Enter symbols "O" "A".</p> <p>(2)  Then enter symbols "O" "A".</p> <p>You can enter symbol "A" by entering symbol "A" on "A".</p> 	<ul style="list-style-type: none"> <li>You can also enter symbol "A" by entering symbols "A" on "A".</li> <li>In this case, the computer regards it as being composed of two pattern blocks.</li> </ul> <p>PATTERN BLOCK</p>  <p>PATTERN BLOCK</p>
<p>(Ex.3) Superimposing pattern</p> <p>You can "superimpose" a pattern block between the symbols "\ " or "/" on another pattern block.</p> <p>The place pattern block can be superimposed</p> <p>(A) </p> <p>(B) </p> <p>(C)  Superimposed pattern block of (A) and (B)</p>	<ul style="list-style-type: none"> <li>The computer regards the pattern(C) is composed of two pattern blocks.</li> </ul> <p>(C) PATTERN BLOCK</p>  <p>PATTERN BLOCK</p> <p>NOTE: You may not knit the superimposed pattern, depending on the material of yarn, tension dial and combination of pattern block.</p>

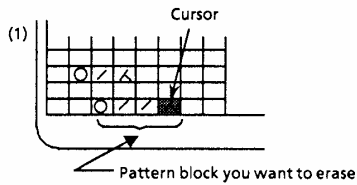
### Create fine lace pattern



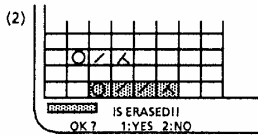
Pushing 1 key, change the symbol from "O" to "C , 3".

HOW TO CREATE FINE LACE PATTERN	REMARKS
<p>(1) </p> <p>Move the cursor to the position where you want to make a closed eyelet "C", and push DRAW key. The symbol "3" appears. (When you move the cursor to the left, the symbol "3" changes to "C".)</p> <p>(2) </p> <p>Move the cursor one stitch to the left and push DRAW key. The symbol "A" appears.</p>	<ul style="list-style-type: none"> <li>After entering the symbol "3", you can move the cursor only one stitch, to the left or right.</li> </ul> <p>← →</p>  <p>◆ If you want to cancel the entered symbol "3" ..... Push HELP key.</p>

## Erase pattern block



Move the cursor to any square of pattern block you want to erase, and push ERASE key.

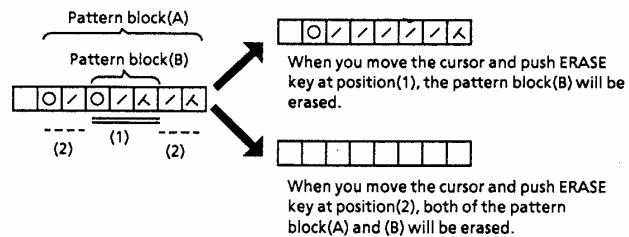


The pattern block which will be erased turns red.  
Confirm if you erase it or not.

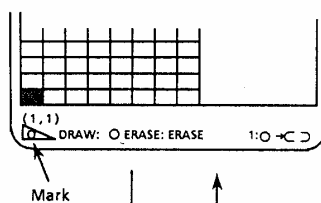
- When you want to erase ..... Push 1 key.
- When you do not want to erase ..... Push 2 key.

### ♣ In case of Superimposed pattern block ....

According to the position where you push ERASE key, the erased part is different.

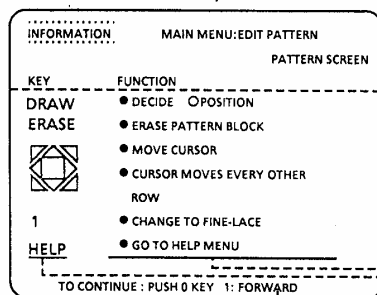


## Key information screen



Mark

0 key



When you find mark at the bottom left of the screen, you may push 0 key.  
The key information appears on the screen and you will find how each key works.  
Push 0 key, for the quick reference to the operation.

### • How to call Key information screen

① Push 0 key.

- ◆ If the Key information screen does not appear, after pushing 0 key ....  
The wrong number has been entered. Push C key to clear it, and push 0 key again.

② The Key information screen appears.

Explains the function of each key.

Shows all the keys available on the screen.

Shows another Key information screen follows.

Push 1 key to go to the next screen.

- When you wish to come back to the usual operation screen and continue .... Push 0 key.

## END CREATION (HELP MENU 1)

### - HELP MENU -

1. END CREATION
2. TRANSFER CURSOR
6. ERASE PART OF PATTERN
7. LOAD STORED PATTERN
8. VARIATIONS
9. TRANSFER PATTERN
10. CHANGE PATTERN AREA

\* SELECT 1 - 10 = ■

When you have finished entering your pattern, you have to tell the computer in order to complete the pattern creation.

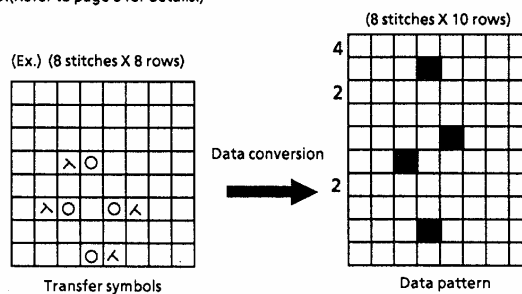
**CAUTION:** You cannot knit the created pattern, without following this step. Moreover, it may damage the created pattern data.

- ① Push HELP key. The HELP MENU appears on the screen.
- ② Choose "1. END CREATION" and push STEP key.
- ③ "WAIT ...." appears on the screen, and the screen comes back to the MAIN MENU. The pattern creation has been completed.

♣ Do not turn power off, while "WAIT ...." appears on the screen.

### ♣ Data conversion by "EDIT PATTERN"

◆ When you have completed the pattern creation, the computer converts the entered "transfer symbols" into "data pattern" for knitting. You can check the data pattern, by the "4. CHECK DATA PATTERN" on the MAIN MENU. (Refer to page 8 for details.)



## ● KNITTING THE CREATED PATTERN

- When you use KH-965/900  
Please refer to the section "CARTRIDGE" in the instruction book of your knitting machine.
- When you use KH-950i/940/930  
Please refer to the section "TRANSFER CREATED DATA FROM/TO KNITTING MACHINE" in the instruction book of your Pattern Programming Device.

### [NOTE]

See page 11, in case the pattern no. you created does not appear on the display of your knitting machine, when you program the pattern on the knitting machine.

The row no. of the pattern, shown on the display, is the one "after data conversion".

### ♣ TRANSFERRING PATTERN DATA FROM/TO KNITTING MACHINE

#### LOADING

It means transferring the data, stored on the lace cartridge, to the knitting machine.

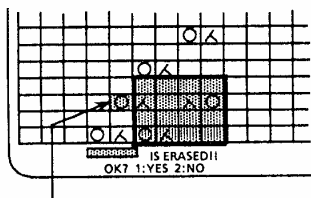
- You can delete or edit the patterns, loaded from the cartridge, to the knitting machine. However, in case you edit the pattern so that it cannot be counter-converted to Transfer symbols, you will not be able to see the pattern on the screen when you transfer the data back to Pattern Programming Device.

#### SAVING

It means transferring the data, stored on the knitting machine, to the lace cartridge.

- Even if you "save" the data which contains various patterns including lace or fine lace patterns, you can edit only lace or fine lace patterns on the screen. However, you can delete any pattern on the screen.

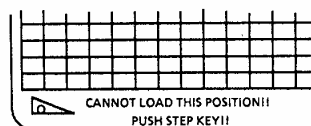
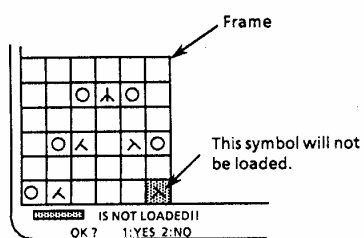
## ERASE PART OF PATTERN (HELP MENU 6)



This transfer symbol will also be erased.

You can erase a part of a pattern at a time, by framing the part.  
When you frame a part of a Pattern Block, all the transfer symbols of the same Pattern Block will also be erased, even if they are outside the frame.  
The area which will be erased turns red.  
When you want to cancel the framed area, push 2 key.

## LOAD STORED PATTERN (HELP MENU 7)



It works the same as that of the Pattern Programming Device.

- You can load lace pattern or fine lace pattern only.
- Pattern is loaded on the screen, in the form of Transfer Symbols.  
In case of Data pattern(ex. patterns in "Stitch World"), it is counter-converted to transfer symbol and loaded onto the screen.

### ◆ Framing the loaded pattern

In the following cases, you cannot load the pattern block, even if they are inside the frame;

- (a) Pattern block split on the left and right edges of the pattern area.
- (b) Pattern block part of which is outside the frame.

In above cases, the part you cannot load turns red.

Push 2 key for re-framing.

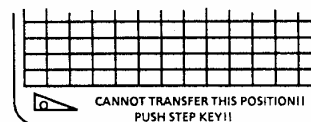
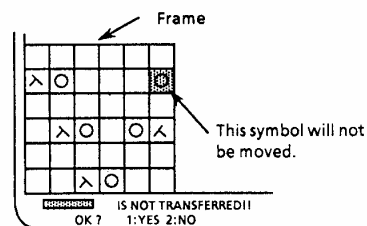
### ◆ Locating the loaded pattern

You cannot locate the loaded pattern where it overlays another pattern block in pattern area, or where part of the loaded pattern block is outside the pattern area.

In above cases, the message shown in the figure left appears.

Push STEP key for re-locating.

## TRANSFER PATTERN (HELP MENU 9)



You can frame and transfer(move) a part of pattern, within the same pattern area.

### ◆ Framing the transferred pattern

In the following cases, you cannot transfer the pattern block, even if they are inside the frame;

- (a) Pattern block split on the left and right edges of the pattern area.
- (b) Pattern block part of which is outside the frame.

In above cases, the part you cannot transfer turns red.

Push 2 key for re-framing.

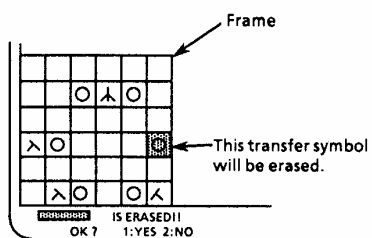
### ◆ Locating the transferred pattern

You cannot locate the transferred pattern where it overlays another pattern block in pattern area, or where part of the loaded pattern block is outside the pattern area.

In above cases, the message shown in the figure left appears.

Push STEP key for re-locating.

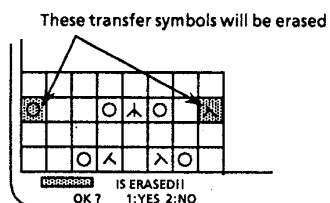
## CHANGE PATTERN AREA (HELP MENU 10)



It works the same as that of Pattern Programming Device.  
However, please note the following points;

### 1. REDUCE PATTERN AREA

In the following cases, the pattern block will be erased, even if it is inside the frame;  
(a) Pattern block split on the left and right edges of the pattern area.  
(b) Pattern block part of which is outside the frame.  
In above cases, the part which will be erased turns red.  
Push 2 key for re-framing the pattern area.



### 2. INCREASE PATTERN AREA

You can use "even" number only, for entering rows.  
The pattern block which is split on the left and right edges of the pattern area will be erased, even if it is inside the frame;  
In this case, the part which will be erased turns red.  
When you want to cancel this operation, push 2 key.

## EDIT PATTERN/DELETE PATTERN (MAIN MENU 2/3)

- EDIT PATTERN -

PATTERN No.	STITCHES	ROWS
▶ 901	8	8
902	12	18
903	23	26 *
.	.	.
.	.	.

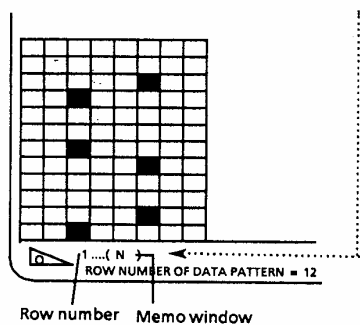
◆ The created patterns are listed on the screen.

----- Shows the pattern creation is not yet completed. (Refer to page 6.)

## CHECK DATA PATTERN (MAIN MENU 4)

You can check the pattern which was entered in the form of Transfer Symbols and then converted by the computer into Data pattern.

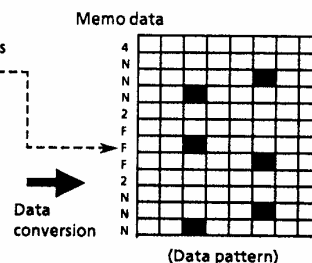
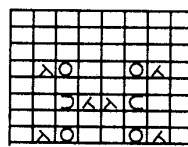
♣ You cannot edit or delete a pattern with this option.



◆ Checking the memo data

You can check the memo data, using the cursor keys  $\nabla$  and  $\Delta$

(Ex.) When you move the cursor to the 6th row .... 6 (F) appears on the memo window.



## PRINT OUT PATTERN (MAIN MENU 6)

You can print out the pattern in the form of transfer symbols or data pattern, with the optional printer.

## IN THE FOLLOWING CASES

### WHEN YOU OPERATE LACE CARTRIDGE ....

(A) If the following ERROR MESSAGE appears on the screen ....

\*\*\* ERROR MESSAGE 9 \*\*\*

PATTERN IS TOO LARGE!!  
DECREASE PATTERN AREA!!

STEP : MAIN MENU  
HELP : HELP MENU

a) When you operate "END CREATION(HELP MENU 1)"

#### Cause

The pattern area is too large. When you finish pattern creation, the computer converts the entered transfer symbols into data pattern. The number of rows of the converted data pattern may be beyond the memory capacity.

#### Suggested action 1

Reduce pattern area.

- ① Push HELP key.
- ② Choose option 10 on the HELP MENU and reduce pattern area.
- ③ Finish the pattern creation.

#### Suggested action 2

Delete the created pattern and create new pattern.

- ① Push STEP key.
- ② Choose option 3 on the MAIN MENU and delete the created pattern.
- ③ Create new pattern.

b) When you operate "EDIT PATTERN(MAIN MENU 2)"

#### Cause

When you operate "EDIT PATTERN", the data pattern is counter-converted into the transfer symbols and appears on the screen. The number of rows of the counter-converted pattern may be beyond the memory capacity. (This may possibly happen on the patterns created not using the lace cartridge.) In this case, you cannot edit the pattern with the lace cartridge.

\*\*\* ERROR MESSAGE 9 \*\*\*

PATTERN IS TOO LARGE!!

PUSH STEP KEY!!

#### Cause

You can edit lace or fine lace patterns only. Push STEP key.

\*\*\* ERROR MESSAGE 10 \*\*\*

THIS IS NOT LACE PATTERN!!

PUSH STEP KEY!!

#### Cause

You have not yet completed the pattern creation.

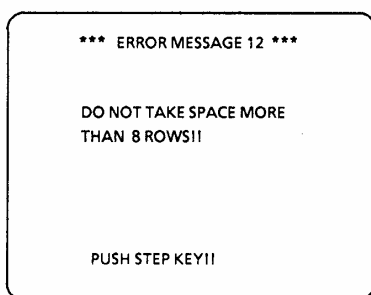
#### Suggested action 1

- ① Push STEP key.
- ② Choose 2 on the MAIN MENU, and enter the pattern number.
- ③ When the pattern appears, push HELP key.
- ④ Choose 1 on the HELP MENU and finish the pattern creation. Then check the data pattern, with "4.CHECK DATA PATTERN" on the MAIN MENU.

\*\*\* ERROR MESSAGE 11 \*\*\*

NOT END CREATION YET!!  
CANNOT CHECK THE  
UN-FINISHED PATTERN!!

PUSH STEP KEY!!



#### Cause

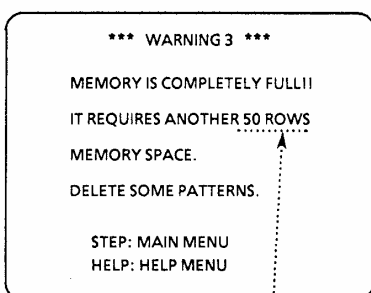
You cannot have more than 8 rows of stocking stitch.

#### Suggested action

Reduce the pattern area for stocking stitch.

- ① Push STEP key.
- ② Choose 10 on the HELP MENU and reduce the pattern area.
- ③ Finish pattern creation.

### B If the following WARNING appears on the screen ....



The figure changes, depending on  
the size of entered pattern.

#### a When you operate "END CREATION(HELP MENU 1)"

##### Cause

When you finish pattern creation, the computer converts transfer symbols into data pattern. By this data conversion, the number of rows of the pattern may be more than the memory capacity left on the cartridge.

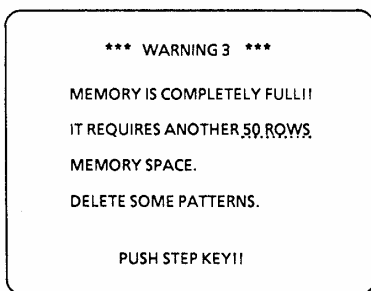
##### Suggested action

- When you use MODE 1 or 4 ....

- ① Push STEP key and the MAIN MENU appears.
- ② Delete unnecessary pattern which uses the area(stitches X rows) equivalent to the required number shown on the screen.
- ③ Choose "2.EDIT PATTERN" to call the unfinished pattern. When it appears on the screen, choose "1.END CREATION" on the MAIN MENU and finish pattern creation.

- When you use MODE 2 or 3 ....

- ① Push STEP key and the MAIN MENU appears.
- ② Choose "7.CHANGE PAGE" and change the page to another, which has blank space. If all pages are already full,  
(A)Delete an unnecessary page, by "DELETE PAGE".  
(B)Follow the steps 2 and 3 above.(When you use MODE 1 or 4 ....)
- ③ Choose "1.CREATE NEW PATTERN" and prepare the same pattern area as that of the unfinished pattern.
- ④ Choose "7.LOAD STORED PATTERN" on the HELP MENU and load the unfinished pattern to the above created area, by "4.FROM OTHER PAGE". Then finish the pattern creation.



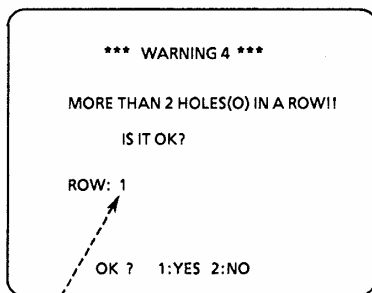
#### b When you operate "EDIT PATTERN(MAIN MENU 2)"

##### Cause

When you operate "EDIT PATTERN", the data pattern is counter-converted to the transfer symbols and appears on the screen. Then the number of rows of the counter-converted pattern may be beyond the memory capacity left.  
(This may happen on the patterns created not using the lace cartridge.)

##### Suggested action

Follow the same steps as shown in ③ above.



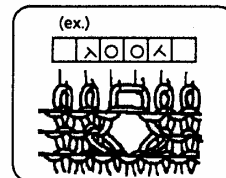
The figure shows the row number which has more than 2 holes.

#### Cause

The pattern has 2 stitches-eyelet.(ex. in the figure right)  
Check if it is correct.

#### Suggested action

- When you use it, as it is, push 1 key.
  - When you want to edit it, push 2 key.
- The pattern creation screen appears.



### WHEN YOU PROGRAM THE PATTERN ON THE KNITTING MACHINE ...

#### C If you cannot enter the pattern no.... (If it does not appear on the display ....)

##### Cause

You have not yet finished the pattern creation, by "END CREATION".  
(It means the transfer symbols are not yet converted into data pattern.)  
You cannot knit any pattern without carrying out "END CREATION".

CAUTION: The pattern data might be damaged when unfinished pattern is loaded on the knitting machine.

##### Suggested action

- ① On PPD, choose "2.EDIT PATTERN" on the MAIN MENU and push STEP key.
- ② Enter the pattern no. of the unfinished pattern. When it appears on the screen, push HELP key.
- ③ Choose "1.END CREATION" on the MAIN MENU and finish pattern creation.
- ④ Transfer the data from the cartridge to the knitting machine.
- ⑤ Program the pattern again, on the knitting machine.

#### D If the pattern no. of 8XX appears on the display ....

##### Cause

You have not yet finished the pattern creation, by "END CREATION"

##### PATTERN NUMBER 8XX

When you program an unfinished pattern on the knitting machine, the pattern no. might be displayed 8XX.

(In this case, the unfinished pattern no. 901 on the cartridge will be displayed 801 and pattern no.902 will be 802.)

You cannot knit the pattern no.8XX correctly.  
Finish the pattern creation by "1.END CREATION".

CAUTION:  
The pattern data might be damaged when the unfinished pattern is loaded on the knitting machine.

##### Suggested action

Follow the same steps as shown in C above.  
In this case, those patterns will appear on the screen, as 9XX marked \*.