Instruction Book

DESIGN CONTROLLER

PE 1

CONTENTS

Design Controller extends the patterning in several ways, giving you scope for all kinds of exciting garments.

You can use a much larger pattern than the 150 rows by 60 stitches that fit on a single Pattern Card. The pattern can be over 20 times as big as a single card – 1000 rows by 200 stitches, for example.

Also you can store patterns onto a 'Memory Card' which can be quickly recalled into the Design Controller.

You can use the Design Controller to help you with patterns using 3 or more colours in a single row of finished knitting.

Precaution

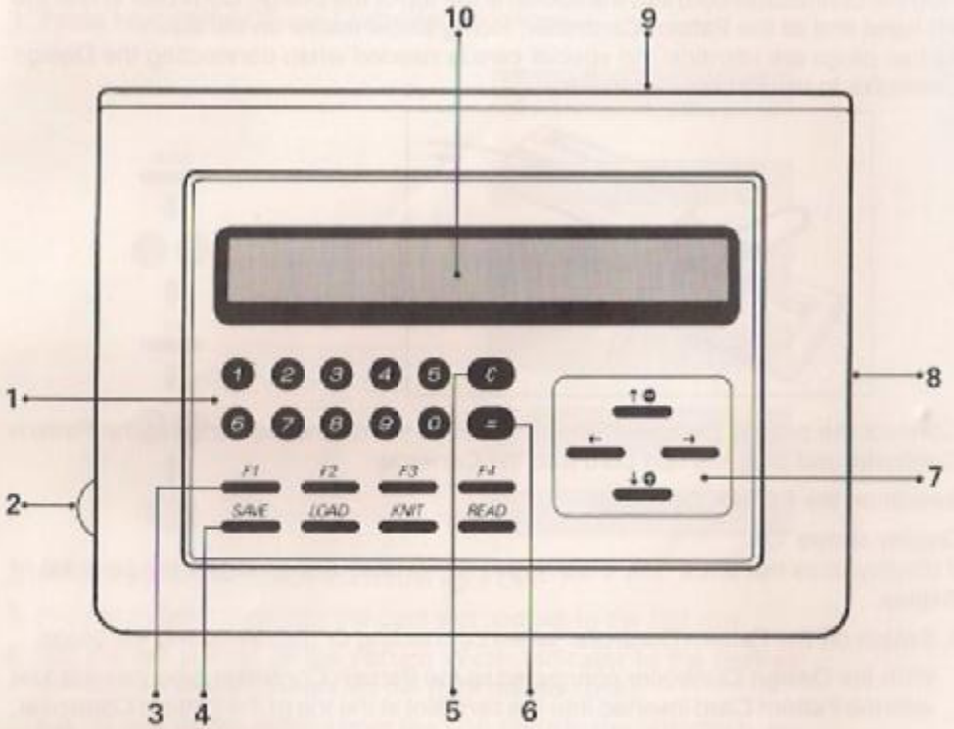
* This unit must be kept away from the following places since electronic components are vulnerable to those conditions.
  1 Direct and strong sun light
  2 Near to heater, or place of excessively high temperature
  3 Excessively humid or dusty

* Switch off the Pattern Controller when connecting or disconnecting the plugs.

* To clean the unit put a very little oil or water on a soft cloth and wipe the outside of the unit.
  Do not use thinner, petrol, alcohol or white spirit.

INTRODUCING THE DESIGN CONTROLLER (PE-1)

NAMES AND FUNCTIONS OF PRINCIPAL PARTS



1. **Numeric Keys**
   To enter the pattern size or to select a particular pattern.
2. **Display Dial**
   To adjust the contrast of display.
3. **Function Keys (F1, F2, F3, F4)**
   To perform different functions.
4. **Mode Keys**
   SAVE.....To save a pattern onto a Memory Card.
   LOAD..... To retrieve a pattern from a Memory Card.
   KNIT..... To work Design Controller like the Card Reader.
   READ.....To initiate reading a pattern from the Card Reader into Design Controller.
5. **Clear Key ('C' Key)**
   To cancel the last entry or even to abandon some instruction part way through, if you change your mind.
6. **Equal Key ('=' Key)**
   To actuate the previous entry.
7. **Direction Keys**
   Minus (−) Key... To move the pattern upwards.
   Plus (+) Key..... To move the pattern downwards.
   Right (→) Key.... To scroll the pattern to the right.
   Left (←) Key..... To scroll the pattern to the left.

   N.B. When you press the key once, the pattern moves one row or one stitch. When you keep pressing the key, the pattern moves continuously.

   NOTE:
   Pressing any key causes the Design Controller to 'beep' gently. If it beeps continuously, it means an error. Refer to the operation procedure and start from the beginning.
8. **Memory Card Slot**
   To insert the Memory Card.
9. **Socket**
   To plug the connection cord.
10. **Display**
    To show a section of the pattern 8 rows by 64 stitches or to display messages.

ACCESSORIES

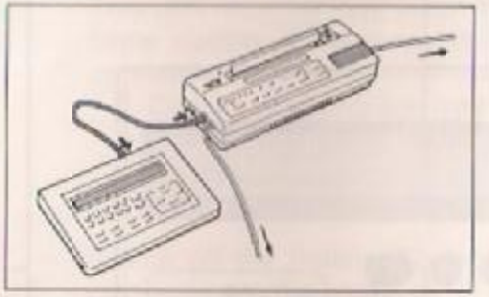
Connection Cord
To connect the Design Controller to the Pattern Controller.

Memory Card
To store patterns transferred from Pattern Cards into the Design Controller. Those patterns stored on a Memory Card can be recalled into the Design Controller to knit. The capacity of the Memory Card is the same as the one of the Design Controller. That is, approximately 27 sheets of Pattern Cards. A single Memory Card can hold up to 250 different patterns, if they are fairly small. The larger the patterns, the fewer will fit on.

Battery
To put in the Memory Card.

CONNECTING UP THE DESIGN CONTROLLER

1. Switch off at the right end of the Pattern Controller.
2. Plug the connection cord into the socket at the top of the Design Controller and at the left hand end of the Pattern Controller, facing arrow marks on the top.
   As two plugs are identical, no special care is needed when connecting the Design Controller to the Pattern Controller.



3. Connect the plug at the end of straight cord to the connection cord of the Pattern Controller and plug the curl cord into the Carriage.
4. Switch on the Pattern Controller.
5. Display shows 'OK'.
   If display does not show 'OK' clearly, use the display dial to adjust the contrast of display.

N.B. Switch off the Pattern Controller when connecting or disconnecting the plugs.

With the Design Controller connected to the Pattern Controller, you can not knit with the Pattern Card inserted into the card slot at the top of the Pattern Controller.

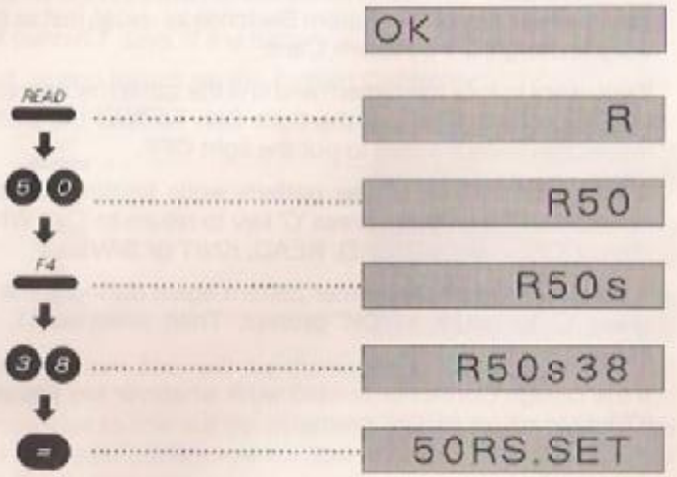
Always set the right pointer of the Pattern Width Indicator of the Pattern Controller to 60 when using the Design Controller.

There is a re-chargeable battery built into the Design Controller. It charges when the Pattern Controller is connected and switched on. When fully charged (which takes 8 hours, the first time) it will remember a pattern for a week, even if it is switched off and put away. The Design Controller works perfectly when connected, whether charged or not, but to use the internal 7 day memory facility you need to keep the battery charged. You don't need to be using the patterning —or the machine — it just needs the Design Controller to be connected and the Pattern Controller switched on.

TO READ A PATTERN INTO THE DESIGN CONTROLLER

Let us take a pattern of 50 rows by 38 stitches as an example.

1. Press keys of the Design Controller as follows.



2. Press Inspection Switch to put the light ON.
3. Put the Pattern Card into the card slot and set to the first row.
4. Set the left pointer of the Pattern Width Indicator to the desired position. However, always set the right pointer to 60.

   e.g. To pick up the pattern from the 17th stitch to the 38th stitch, set the left pointer to 16 and the right to 60 of the Pattern Width Indicator.
5. Press Inspection Switch to put the light OFF.
6. Press =

* The pattern is read row by row. At the end of the pattern, the display shows COMPLETED

and then OK

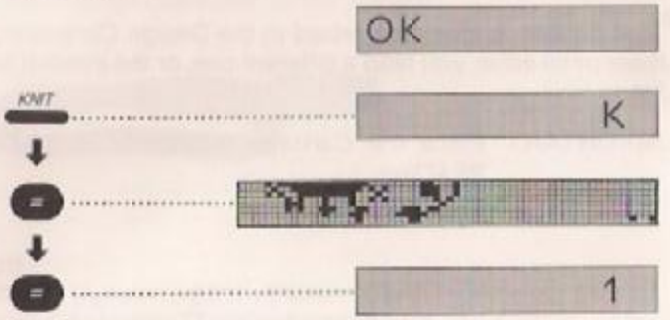
7. Take the Card out of the card slot.

That pattern is now memorized in the Design Controller, and stays there untill either you read a different one, or the internal battery goes flat.

IMPORTANT: Place the Carriage outside of Point Cams while READing.

TO KNIT A PATTERN FROM THE DESIGN CONTROLLER

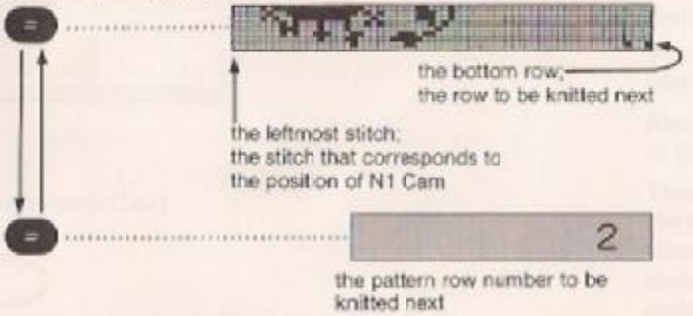
1. Press keys as follows.



*Display shows a pattern row number.

2. Press Inspection Switch to put the light ON.
   Move the Carriage across and back twice to pick up the positions of Point Cams and N1 Cam.
3. Press Inspection Switch to put the light OFF.
   Knit the pattern normally, just as though you were using a Pattern Card.

   The display shows the pattern and the pattern row number alternately when you press '=' Key.



As you knit, the pattern on the display moves downwards, or the number on the display changes to the next.

HINTS:

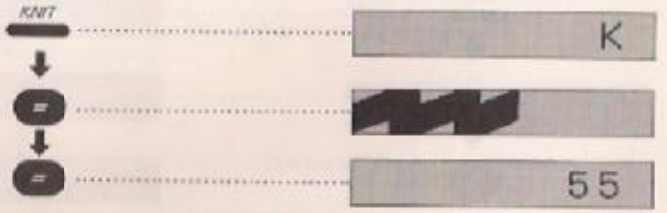
* You need not pause at the end of a pattern, of course, because 'return to start' is instant.
* You may use any of the Pattern Switches as usual, just as though you were knitting from a Pattern Card.
* If you want to lock the pattern and knit the same row repeatedly, press Inspecion Switch to put the light ON. To feed the pattern, press Inspection Switch again to put the light OFF.
* If you want to knit a new pattern while knitting, or start a new operation after knitting, press 'C' key to return to 'OK'. When display shows 'OK', you can LOAD, READ, KNIT or SAVE.
* If you want to knit the former pattern again during some operation, press 'C' to return to 'OK' prompt. Then press 'KNIT, =' to start knitting.
* If the Design Controller doesn't work whatever key you press, press 'C' key to return to 'OK' prompt.

To stop knitting and then re-start;

You may stop knitting at any time. Press '=' key to display the pattern row number and note down it. Switch off the Pattern Controller.

To re-start (within 7 days, if the battery is fully charged);

1. Connect up and switch on the Pattern Controller.
2. Press keys as follows;



* The same pattern row will be displayed as the row where you switched off.
  It is a good idea to check if the displayed pattern row number is the same as the noted pattern row number. If not, use the direction key to set to the correct row.

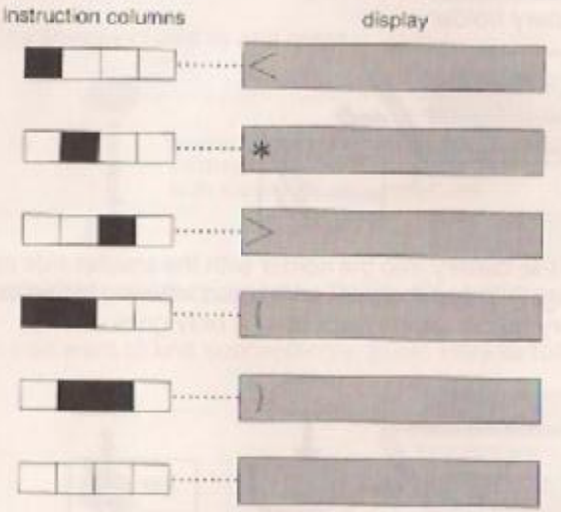
3. Press Inspection Switch to put the light ON. Move the Carriage across and back to pick up the Cam positions.
4. Press Inspection Switch to put the light OFF. Start knitting.

HINTS:
If the display shows 'CHECK PAT.', press '=' key to check that the pattern is displayed correctly.

If the pattern isn't displayed correctly, press 'C' key and READ the pattern into the Design Controller once again.
Press 'KNIT, =, =' and check the pattern row number. Set to the noted pattern row number by using the direction key. Then start knitting.

Using the instruction columns of the Pattern Card;

When using the Design Controller, the instruction columns are not used to control the movement of the Pattern Card. They are available for patterning information and the first three of them can be used.
If you use them, you will see various symbols displayed when you knit. Use these symbols to show the row to change yarns, the colour numbers of yarns, the direction in which you should next move a Lace Carriage, etc..
Normally you will be able to see symbols as shown below.

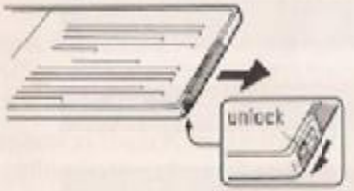


N.B. When using the Design Controller, marks in the buzzer column of the Pattern Card work as usual.

INTRODUCING A MEMORY CARD

Each Memory Card is supplied with a battery, which will last about 5 years. You must have a battery in. If you do not, any pattern you save will be lost when you take the Memory Card out of its socket on the Design Controller.

To fit the battery to a new Memory Card, pick up the Memory Card and look closely at each end. The end with the arrow on the front has the connection slot which makes contact when you plug it into the Design Controller. The other end is where the battery fits. There is a tiny sliding lock at one side which you move towards the edge to unlock the battery holder. Use a transfer tool to slide it. Now grip the very edge of the Memory Card with thumb and finger on the flat surfaces, and gently pull out the battery holder.



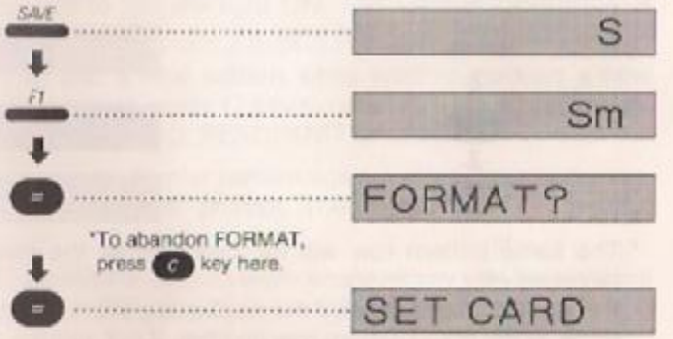
Place the thin disc battery into the holder with the smaller side against the metal springs (−), and the main embossed lettering facing out (+). Slide the battery holder gently back in — it only goes oneway — and then lock it.

N.B. When the battery has discharged, the display shows 'CHANGE CEL'. To change the battery, refer to "If the display shows 'CHANGE CEL'....." on page 22.

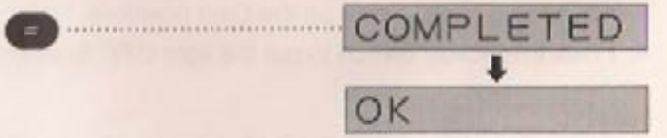
TO FORMAT A MEMORY CARD

When the battery is put in, the Memory Card needs to be prepared to receive patterns. It is called 'FORMATting' the card. Without FORMATting, the display shows 'NO FORMAT'.
You can also erase all patterns from the Memory Card by FORMATting it.

1. Press keys as follows.

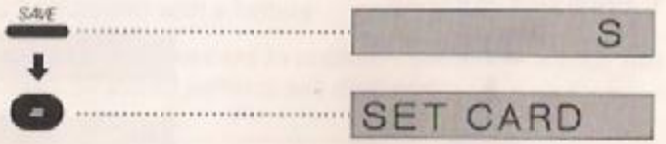


2. Put the Memory Card into the slot of the Design Controller.
3. Press

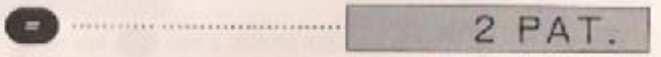


TO STORE A PATTERN ONTO A MEMORY CARD

1. READ the pattern into the Design Controller. (Refer to page 5.)
2. Press keys as follows.

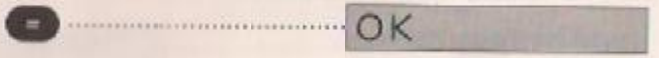


3. Put a Memory Card into the slot and press as follows.



*Display shows the stored pattern number.

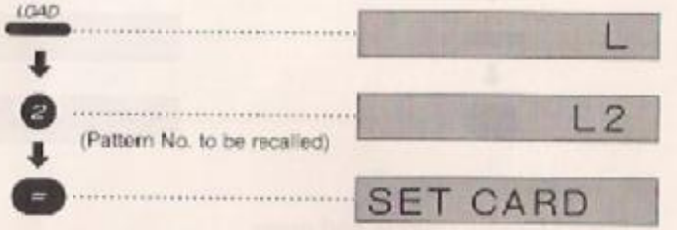
4. Note the number with a pattern description, then press.



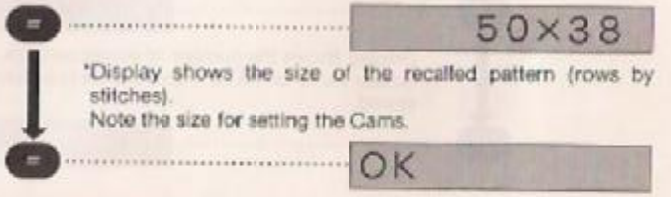
TO RECALL A PATTERN FROM A MEMORY CARD

Let us take a pattern of 50 rows by 38 stitches, stored on the Memory Card as the 2nd pattern, as an example.

1. Press keys as follows.



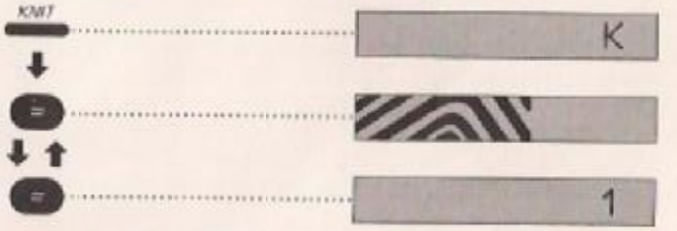
2. Put a Memory Card in and press.



*Display shows the size of the recalled pattern (rows by stitches).
Note the size for setting the Cams.

The pattern is nowloaded into the Design Controller and ready to knit.

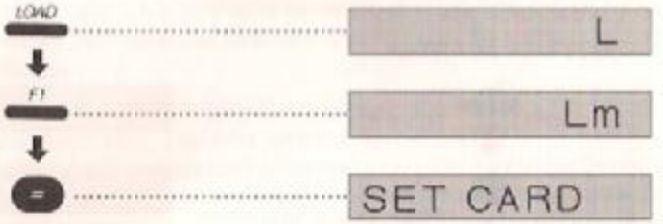
When you want to knit succeedingly, press keys as follows.



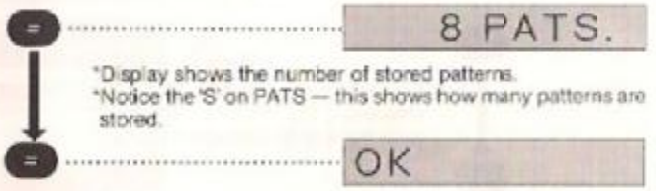
Start knitting following the instructions of 'TO KNIT A PATTERN FROM THE DESIGN CONTROLLER'. (Refer to page 6.)

TO SEE HOW MANY PATTERNS ARE ON A MEMORY CARD

1. Press keys as follows.



2. Put a Memory Card in and press.

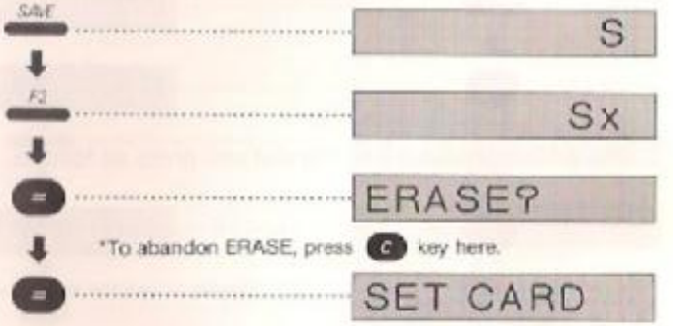


*Display shows the number of stored patterns.
*Notice the 'S' on PATS — this shows how many patterns are stored.

TO ERASE THE LAST PATTERN FROM A MEMORY CARD

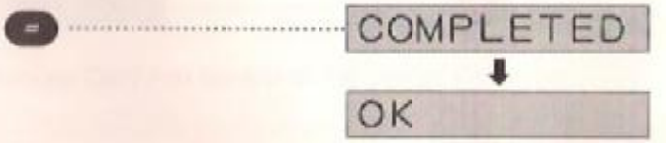
You can erase the last pattern saved. (If you want to erase a whole card, use FORMAT.)

1. Press keys as follows.



*To abandon ERASE, press C key here.

2. Put a Memory Card in and press.



TO COPY A COMPLETE MEMORY CARD

You can make a copy of a complete card all at once instead of pattern by pattern. Prepare two cards, a master Memory Card (the card to copy FROM) and a new Memory Card (the blank card to copy TO). A new card should be supplied with a battery.

NOTE: If you copy a whole card to another card which already has patterns, all stored patterns will disappear.

1. Press LOAD L
   ↓
   SAVE ..... LS
   ↓
   = ... MASTER CRD

2. Put a master Memory Card in and press
   = ... CHANGE CRD

3. Pull the master Memory Card out.
   Put a new Memory Card in and press
   = ... COMPLETED
   ↓
   OK

TO COPY A PATTERN FROM A MEMORY CARD TO ANOTHER MEMORY CARD

Let us take a pattern of 50 rows by 25 stitches, stored on a Memory Card (card A) as the 3rd pattern, as an example of a pattern to be copied to another Memory Card (card B).

First, recall a pattern from a card A into the Design Controller following the instructions below.

1. Press LOAD L
   ↓
   3 ..... L3
   (Pattern No. to be recalled)
   ↓
   = ... SET CARD

2. Put the card A in and press
   = ... 50×25
   ↓ *Display shows the size of the recalled pattern (rows by stitches).
   = ... OK

3. Pull the card A out.

Secondly, store the recalled pattern onto the card B following the instructions below.

4. Press SAVE ..... S
   ↓
   = ... SET CARD

5. Put the card B in and press
   = ... 5 PAT.
   ↓ *Display shows the stored pattern number.
   = ... OK

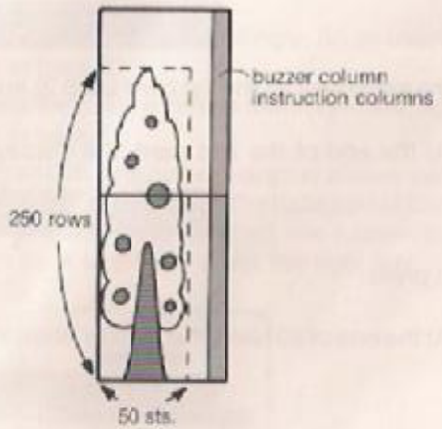
To store required patterns onto another Memory Card;

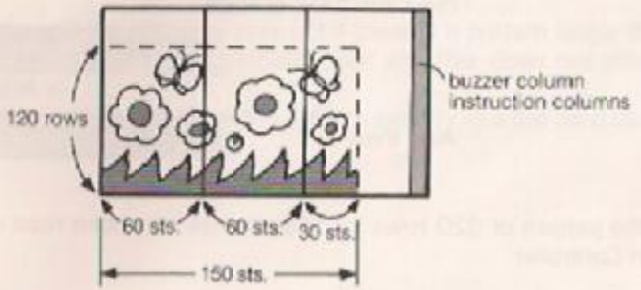
1. Prepare a Memory Card which already has patterns (card A) and a new Memory Card (card B). FORMAT the card B.
2. Recall a required pattern from the card A into the Design Controller. Store the pattern onto the card B. (Refer to 'TO COPY A PATTERN FROM A MEMORY CARD TO ANOTHER MEMORY CARD' on this page.) Repeat the above procedure untill all required patterns are stored onto the card B.
3. FORMAT the card A.

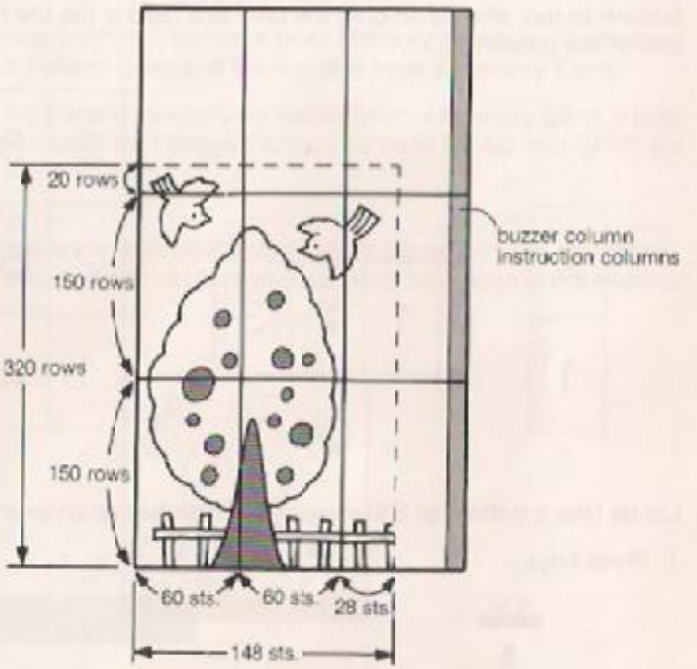
Now the card B has required patterns and the card A has no pattern.

TO READ A PATTERN THAT IS LARGER THAN A SINGLE DESIGN CARD

First, draw a pattern on Design Cards with a design pencil. The number of cards you will need is dictated by the total number of rows and stitches in the pattern. For example, to draw a pattern which is 320 rows by 148 stitches, prepare 9 cards as shown on the right.

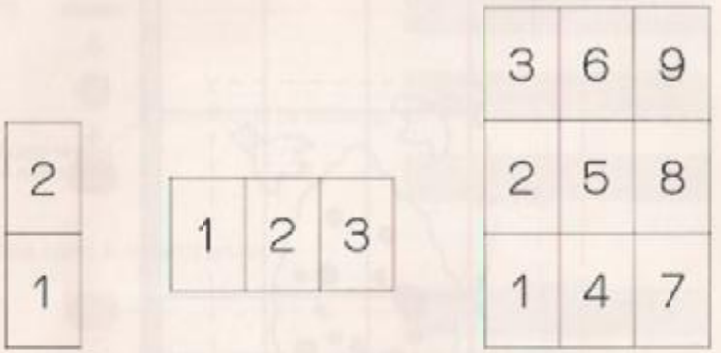






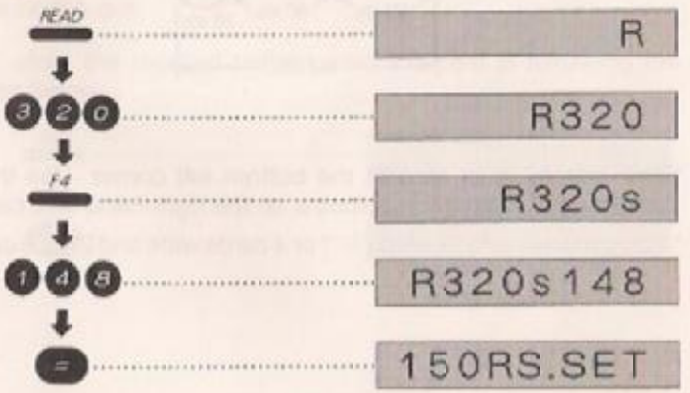
* The pattern must start at the bottom left corner. Use the buzzer column and instruction columns on the right-hand side cards.
* You can use up to 27 cards — 1 or 4 cards wide and 27 or 6 cards high.

Secondly, read the pattern into the Design Controller.
Read the cards in the sequence as shown below.
Always start by reading the card from the bottom left corner, then the one above, and so on up to the top. Then read the next column from bottom to top, and so on until the last card read is the top right hand one of the pattern.



Let us take a pattern of 320 rows by 148 stitches as an example.

1. Press keys



2. Press Inspection Switch to put the light ON. Set the 1st Design Card. Set pointers of the Pattern Width Indicator. Press Inspection Switch to put the light OFF.

3. Press = *At the end of the 1st card, the display shows

150RS.SET

4. Set the 2nd card in the same way as the 1st card (step 2) and press

= *At the end of the 2nd card, the display shows

20RS.SET

5. Set the 3rd card and press

= *At the end of 20 rows, the display shows

150RS.SET

6. Repeat the above procedure untill all of 9 cards has been read.

*When the last 20 rows have been read, the display shows

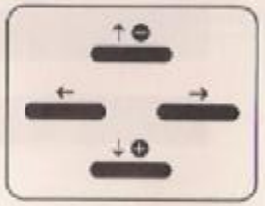
COMPLETED

And then OK

Now the pattern of 320 rows by 148 stitches has been read into the Design Controller.

HINTS:

* Even if one of the cards has no pattern on it, you must still read it in, in the correct sequence, or the Design Controller would not understand.
* Do not move the Pattern Width Indicator while READing. The Design Controller knows how many columns to read at each stage.
* To knit the pattern succeedingly, do as usual. (Refer to page 6.)
* To store the pattern onto a Memory Card, do as usual. (Refer to page 9.)
* During knitting the pattern, display shows the pattern only 64 stitches from left end stitch. To see the right part of the pattern, use the left key of the direction keys to scroll the pattern to the left. To scroll the pattern back to the right, use the right key.



The right and the left keys only act if there is a pattern larger than 60 stitches wide in the Design Controller and this does not affect the knitting at all.
The (−) and (+) keys move the pattern exactly like the card dial.

If you have two patterns, you can instruct the Design Controller to read first the bottom one, then add the top one above it, so that whole can be knitted as one pattern. (You can also read a third or more patterns from a Memory Card on top of the previous ones.)

You can read both (all) patterns from Memory Cards, or the bottom one from a Pattern Card and the top one from a Memory Card.

N.B. The top pattern can only be loaded from a Memory Card. If both patterns exist on Pattern Cards, you must READ and SAVE the top one first.

IMPORTANT:
Both patterns must be the same width (same number of stitches). This implies that the narrower one must be read in at the width of the other.

Let us take two patterns as an example. The bottom one is 50 rows by 38 stitches and the top one is 80 rows by 38 stitches.

1. Store the top pattern onto a Memory Card at the same width as the bottom one, that is 38 stitches. (Refer to page 9.)

2. Read the bottom pattern on a Pattern Card into the Design Controller, or recall the pattern from a Memory Card into the Design Controller following the instructions below.

(In case of reading a pattern on a Pattern Card)

READ

5 0

F4

3 8

=

Set a Pattern Card.

=

*Display shows 'OK'.

(In case of recalling a pattern from a Memory Card)

LOAD

8 (Pattern No.)

=

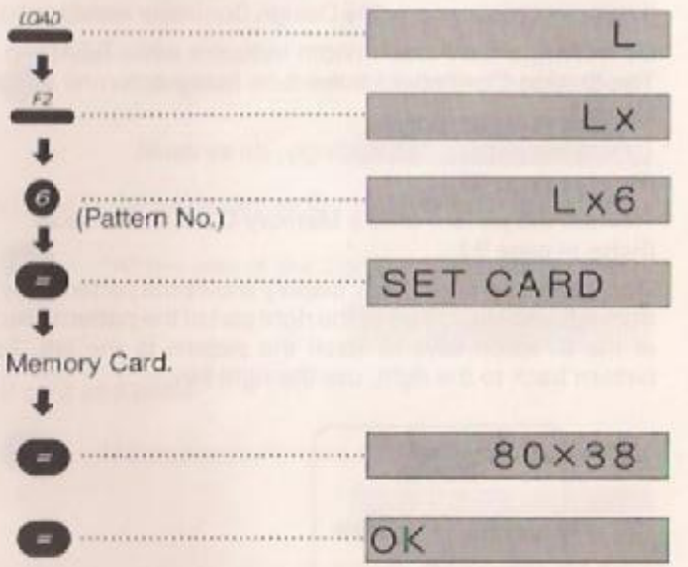
Set a Memory Card.

=

=

*Display shows 'OK'.

3. Succeedingly, recall the top pattern from the Memory Card.



Now two patterns are combined into one. Check by pressing 'KNIT, =', and the direction key.

You can knit succeedingly, or store the pattern onto a Memory Card.

If you want to combine the pattern with more patterns, repeat step 3.

To combine a pattern with its vertically inverted pattern;

You can combine a pattern with its vertically inverted pattern, so that whole can be knitted as one pattern.

First, SAVE the pattern on a Pattern Card inversely onto a Memory Card in the following manner.

Press Inspection Switch to put the light ON.
Set the Pattern Card at the last row of the pattern.
Press Direction Switch on the Pattern Panel to have the right light ON.
Press Inspection Switch to put the light OFF.
READ and SAVE the pattern.

Then, combine the pattern on the Pattern Card with its vertically inverted pattern on the Memory Card. (Refer to pages 15 ~ 16.)

1. Draw Design Cards separately for each colour as instructed below.

   1) Draw an original pattern in colours.

   2) Draw each part of the pattern according to colours onto separate Design Cards.
   Prepare a blank card for a background. (If the pattern is small, you can draw the parts on the same card separately.)

   Number each colour as follows.

pattern A

green-1

pattern B

brown (trunk) — 2
yellow (stars) — 3
red (socks) — 4

pattern C

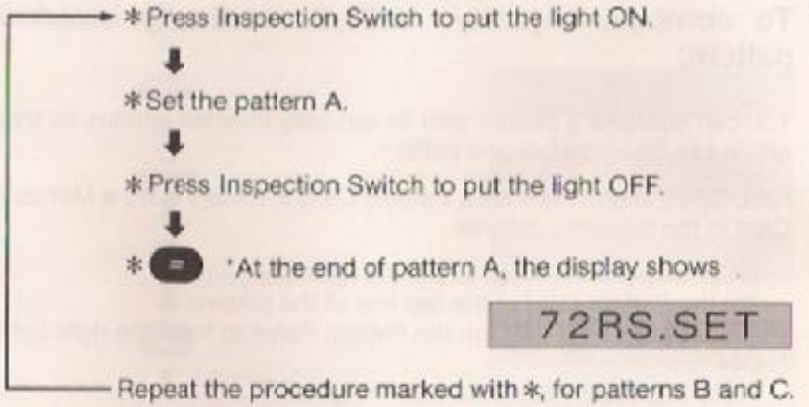
background — 5

   3) Mark the instruction columns to code the different colours.

   The first three of the instruction columns can be used.
   The display does not show the symbols but colour numbers when you use the instruction columns with the function key 'F3' for Multi-colcured Jacquard.

The first columun is given the value 1, the second is given the value 2 and the third is given the value 4.
Whatever marks you put in the columns, those values are added together, and the display shows the resulting number as shown below. No mark would display 0.

2. Read the pattern into the Design Controller. Let us take a pattern of 72 rows by 60 stitches to knit in 3 colours as an example.



*At the end of pattern C, the display shows

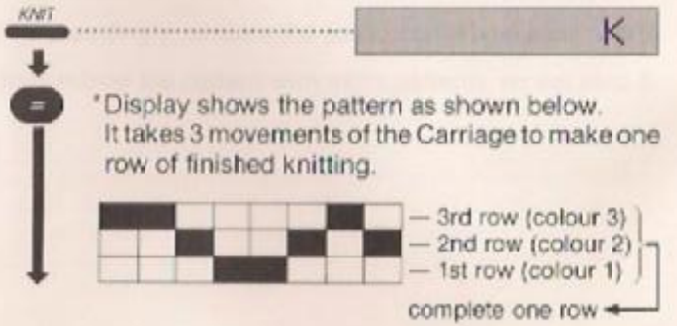
COMPLETED

and then

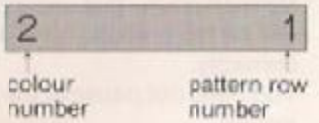
OK

IMPORTANT: READ the blank card for background last.

3. Knit Multi-coloured Jacquard following the instructions below.



* Display shows colour number of the next row on the left side and next pattern row number on the right side.



Press Inspection Switch to put the light ON.

↓

Set the Point Cams and the N1 Cam, and cast on.

↓

Press Inspection Switch to put the light OFF.

↓

Set the Cam Lever to Slip.

N.B. Press the Pattern Switch 1 to have the left light On.

↓

Knit and change yarns following the colour number instructed on the display.

N.B. To knit Multi-coloured Jacquard easily, use a Yarn Changer, YC-6 (Optional).
Draw the pattern on the Design Cards shorter than expected height of the pattern and read them into the Design Controller.
Place the Carriage on the left side.
Press Inspection Switch to put the light OFF and Pattern Switch 3 to put the light ON.
Knit and change yarns every two rows by using the YC-6.

To knit a pattern larger than a single Design Card in Multi-coloured Jacquard;

1. Draw each part of the pattern according to colours onto separate Design Cards.

   e.g. Let us take a pattern which is 3 times as long and wide as a single card to knit in 3-coloured Jacquard.

   Draw 19 cards
   - 9 cards for colour A
   - 9 cards for colour B
   - 1 blank card for background (colour C)

   Mark instruction coloumns on the right-hand side cards for each colour.

2. Read the Design Cards into the Design Controller in the following sequence.
   1) Read cards 1, 2, and then 3 for colour A.
   2) Read cards 1, 2, and then 3 for colour B.
   3) Read blank card for colour C three times.
   4) Read cards 4, 5, and then 6 for colour A.
   5) Read cards 4, 5, and then 6 for colour B.
   6) Read blank card for colour C three times.
   7) Read cards 7, 8, and then 9 for colour A.
   8) Read cards 7, 8, and then 9 for colour B.
   9) Read blank card for colour C three times.

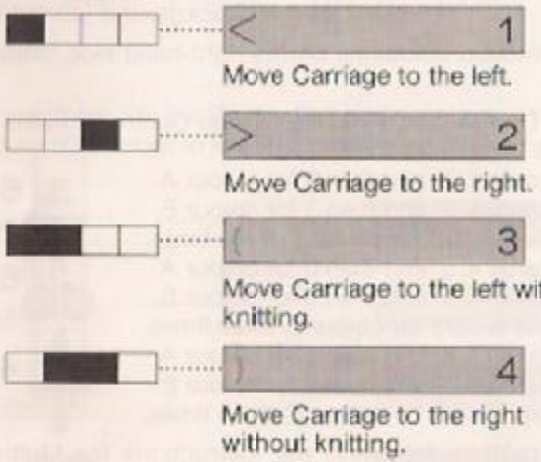
3. Knit the pattern, following the instructions for Multi-coloured Jacquard.

When you knit Lace pattern;

Read a Pattern Card for Lace knitting as usual into the Design Controller.

As Design Controller does not scan notation columns, use the instruction columns to show the direction in which you should move the Carriage next.

e.g. instruction columns display



When you knit Double Jacquard;

Read a Pattern Card for Double Jacquard as usual into the Design Controller.

Mark a buzzer column to indicate the row to change yarns.

The relation between pattern feeding of the Design Controller and the Carriage operation

* No matter how fast you move the Carriage, the pattern on the display will be fed correctly and the next row of the pattern will be scanned correctly.
  You need not pause at the end of a pattern, because 'return to start' is instant.

* Even if you move the pattern on the display upwards or downwards by pressing (−) or (+) key, you can continue knitting without pressing Inspection Switch to scan the new row of the pattern to be knitted next.

* The pattern on the display will be fed when the Carriage encounters the second (the last) Point Cam.
  Therefore, if you notice that you are knitting incorrectly before the Carriage encounters the second Point Cam, return the Carriage to the beginning of the row and continue to knit. (You don't have to move the pattern on the display.)

If incorrectly knitted or if the Carriage has jammed...

— In case the Carriage has not encountered or passed the second (the last) Point Cam

1. Return the Carriage to the beginning of the row using the Release Lever. Unravel the incomplete row.
2. Continue to knit.

— In case the Carriage has encountered or passed the second (the last) Point Cam

1. Using the Release Lever, move the Carriage in its proceeding direction and off the working needles.
2. Unravel 1 row of the knitting.
3. Return the Carriage to the opposite side using the Release Lever.
4. Return the pattern on the display by 2 rows by pressing the (−) key.
5. Continue to knit.

N.B. If you press Inspection Switch to put the light ON before returning the Carriage to the opposite side with the Release Lever (step 3), return the pattern on the display by only 1 row using the (−) key. Then press Inspection Switch to put the light OFF, and continue to knit.

If several rows are incorrectly knitted...

1. Unravel incorrectly knitted rows.
2. Return the pattern on the display as many rows as the rows unravelled using the (−) key.

   If the Carriage is on the side opposite the yarn, move the Carriage to the same side as the yarn using the Release Lever. Then return the pattern on the display 1 more row using the (−) key.
3. Continue to knit.

If you want to store a pattern onto a Memory Card while knitting the pattern...

1. Note the pattern row number on the display.
2. Press 'C' key. Display shows 'OK'.
3. Store the pattern following the instructions of 'TO STORE A PATTERN ONTO A MEMORY CARD' on page 9. Then display shows 'OK'.
4. Press 'KNIT, =, ='. Display shows a pattern row number.
5. Set the pattern row number to the noted pattern row number using the (−) or (+) key.
6. Cotinue to knit.

N.B. The pattern is stored on the Memory Card not starting with the noted row but with the 1st row.

If you want to pick up a part of a pattern...

READ a pattern on a Pattern Card into the Design Controller following the instructions below.

— To pick up a part of a pattern from the left end of the pattern;

To pick up a pattern 50 rows by 30 stitches from a full pattern 120 rows by 60 stitches,

Press Numeric Keys as the same number of rows and stitches to be picked up. Press 'READ, 50, F4, 30, =',

Press Inspection Switch to put the light ON.
Set the Pattern Card to the first row to be picked up.
Set the left pointer to 0 and the right to 60.
Press Inspection Switch to put the light OFF.

Press '='.

While READing, display shows the full pattern (60 stitches). But while KNITting, display shows the picked-up pattern (30 stitches).

— To pick up a part of a pattern from desired position on the pattern;

Follow the above instructions except setting the left pointer. Set the left pointer to the desired position. For example, to pick up a pattern 50 rows by 30 stitches between 18th stitch and 47th stitch from a full pattern 120 rows by 60 stitches, set the left pointer to 17 and the right to 60 of the Pattern Width Indicator.

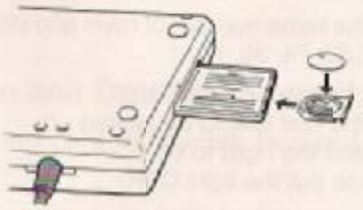
If the display shows 'CHANGE CEL'...

A battery in a Memory Card will last about 5 years. If the battery is too old and has discharged(gone flat), the display shows 'CHANGE CEL'.

The stored pattern on the Memory Card will disappear as soon as you take a battery out of the slot. To change a battery, follow either of the instructions below if you want to preserve the pattern on the Card.

— Changing a battery while Memory Card is inserted into the Design Controller

1. Connect the Design Controller with the Pattern Controller. Switch on the Pattern Controller. Insert the Memory Card into the Design Controller.
2. Turn the Design Controller over. While the Memory Card is inserted in the Design Controller, take out an old battery from the Memory Card and put in a new battery.



3. Take out the Memory Card. Now battery has changed.

— Changing a battery in the same procedure as you copy a complete Memory Card (Refer to page 11.)

1. Press 'LOAD, SAVE, ='.
2. Put the Memory Card whose battery has to be changed in and press '='.
3. Pull out the Memory Card and change the battery.
4. Put the Memory Card with a new battery in and press '='.

After changing the battery, write down the date on the Memory Card.

MESSAGES DISPLAYED — SUMMARY

OK	Ready for instruction.
TOO BIG	You've programmed in too big a pattern, check and re-input after pressing 'C'.
CARD FULL	Either you have put more than 250 small patterns on one card, or the patterns are too large in total.
NO DATA	You have told the Design Controller to LOAD a pattern number which is not on that card.
CHECK PAT.	The internal battery is very low, because the Design Controller has been disconnected. The pattern may still be there, but check it, and READ it or LOAD it again if necessary.
CHECK STS.	The second pattern (to be LOADed from Memory Card) is not the same width as the first one. The second one is not loaded, start again after pressing 'C'.
15RS. SET	Put the Pattern Card in and set it ready to read a 15 row pattern, then press '='.
CHANGE CEL	The battery in the Memory Card needs to be replaced. Patterns on the card can still be LOADed, but you cannot SAVE or ERASE. Change the battery while the Memory Card is plugged into the Design Controller, if you want to preserve the patterns on the card.
NO CARD	The Memory Card is not plugged in correctly.
BAD CARD	For some reason this card is not useable. See your dealer for a correct replacement.
NO FORMAT	You have attempted to SAVE before FORMAT-ting the Memory Card.
SET CARD	Put a Memory Card into the slot.
MASTER CRD	Insert the card to copy FROM.
CHANGE CRD	Insert the blank card to copy TO.
PROTECTED	You cannot use this card as a Master for copying — it was made using the Master Card facility. You can load individual patterns and save them, but you cannot 'bulk copy'.
FORMAT?	After the 'SAVE, F1, =' sequence, this asks if you wish to format a card. Press '=' to say 'yes' or 'C' to say 'no'.
ERASE?	After the 'SAVE, F2, =' sequence, the display asks if you wish to erase the last pattern of the Memory Card; '=' for 'yes'; 'C' for 'no'.
15 PAT.	That was the 15th pattern stored on this Memory Card.
15 PATS.	There are 15 patterns altogether on this card.
COMPLETED	A function such as READ, LOAD, FORMAT, etc. is complete.

MEMO

Printed in Japan 1990.4(E)