

Electronic controller

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Quick sequence of use

With shape

Self-repeating patterns

*** Decorative patterns

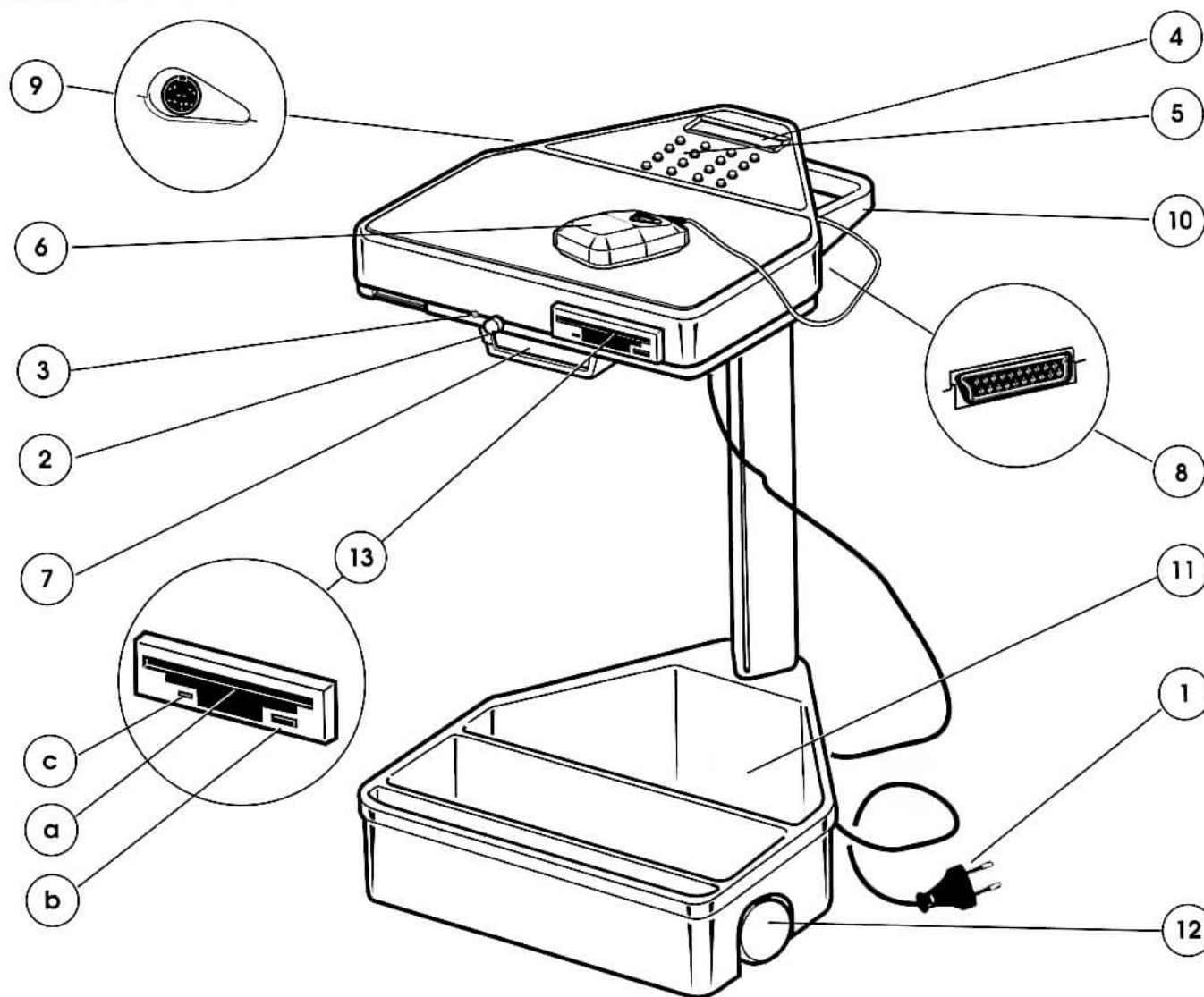
- 1) Connect the knitting machine to the controller
 - 2) Create or call up a pattern
- *** Select a decorative pattern : it will be finalized later

- 3) Knit the test samples
- 4) Enter the part to be knitted
- 5) *** Create the final decorative pattern
- 6) Set the pattern on the shape
- 7) Knit

Description

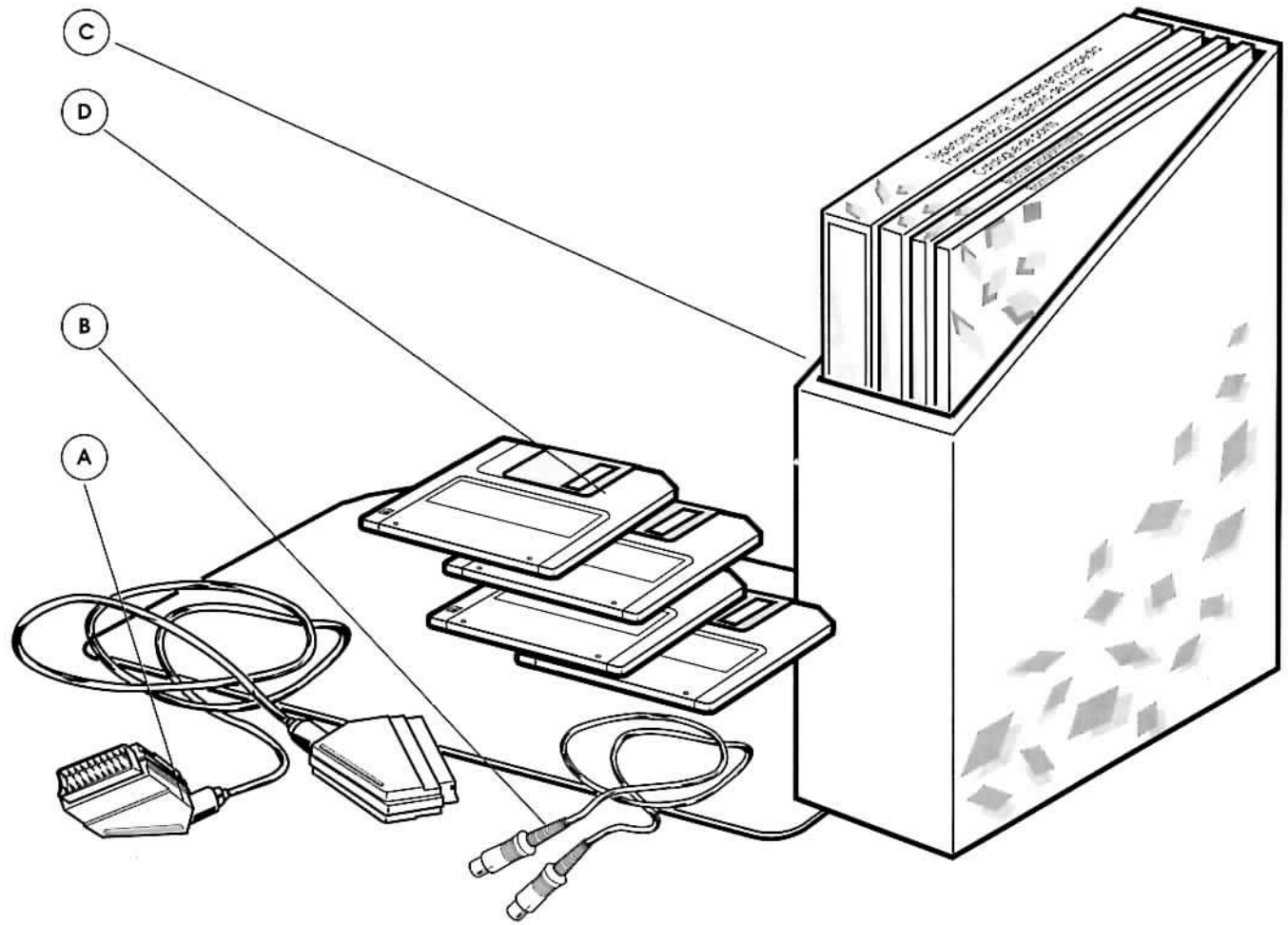
The electronic controller

- 1) Supply cord
- 2) Main On/Off button
- 3) Pilot light
- 4) LCD display
- 5) Keyboard
- 6) Mouse
- 7) Storage box for the mouse
- 8) Scart plug
- 9) Outlet for connection lead of knitting machine
- 10) Handle to move the controller
- 11) Storage box for manuals
- 12) Wheeled stand
- 13) Drive
 - a) insertion slot for floppy disk
 - b) ejector button for floppy disk
 - c) pilot light for recording



The peripheral accessories

- A) Scart lead
- B) Connection lead of knitting machine-controller
- C) Storage box for manuals
- D) Floppy disks



The keyboard of the controller

The keys of the board

1) Numerical board

Allows to tap values

2) H = Help

The H-key is used during knitting.
It allows to get information regarding knitting.

3) Y = Yes

The Y-key is used to confirm a written proposal.

4) N = No

The No-key is used when a written proposal has not to be confirmed.

5) E = Enter

The E-key allows to enter values tapped by means of the numerical board in the memory of the controller.

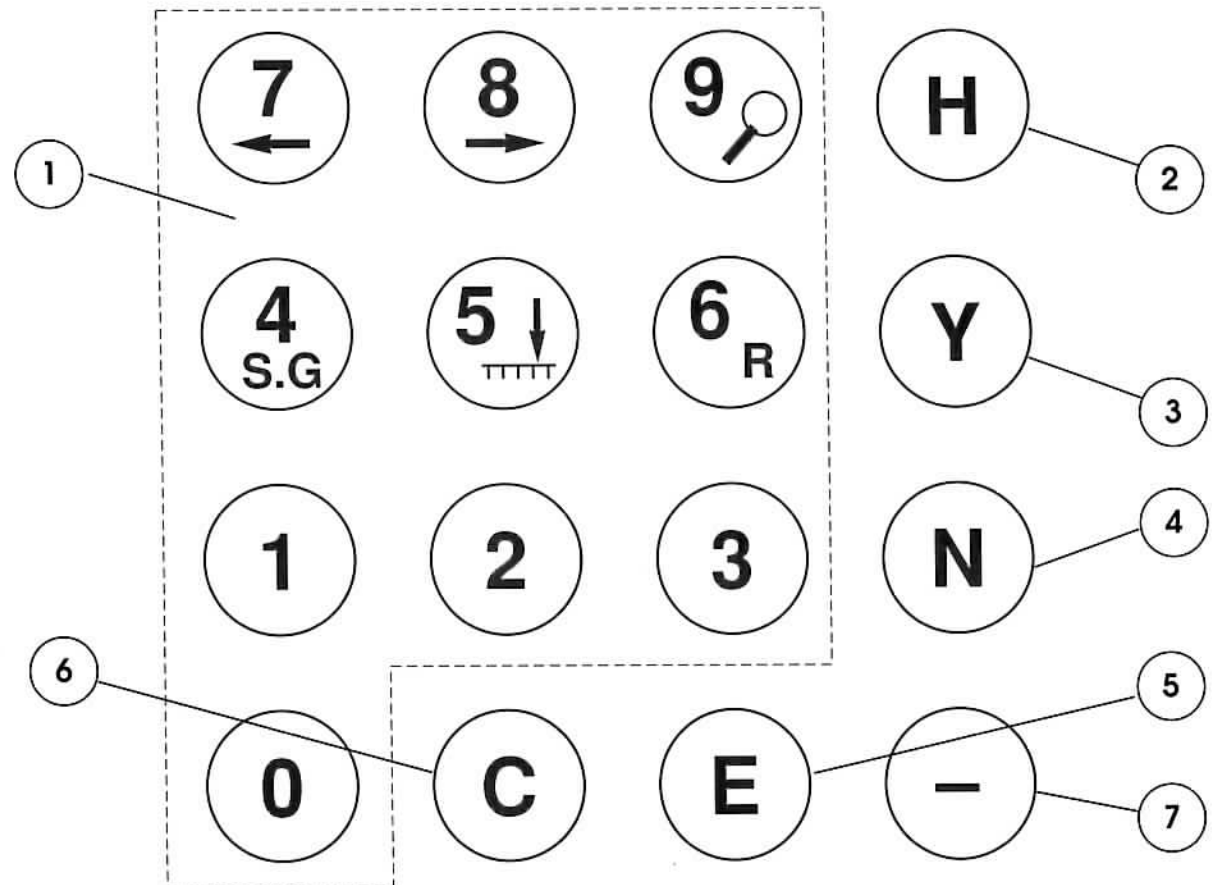
6) C = Correction

The C-key is used to correct a figure or a number during tapping.

7) - = Hyphen : It is used when calling a shape.

Minus symbol : It is used to subtract rows during knitting.

- Symbol : It determines the left-hand side of the machine when setting the cursor.



Each function is explained in detail in the instruction manual.

The symbols of the board

A) STOP - GO (4)

- With the STOP function, no information can be given from the controller to the knitting machine.
- With the GO function, the information from the controller is given to the knitting machine when knitting.

B) Initialization (5)

The initialization function must be used before knitting. It allows to synchronize the controller with the knitting machine.

Answer the question : Cursor ?

Tap the number which corresponds to the place of the cursor.

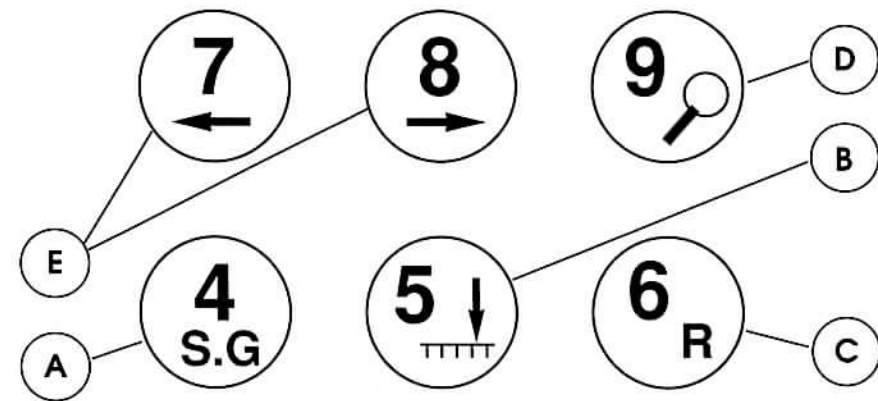
C) Rows (6)

The function is used during knitting.

It allows a quick move either forward or backward of one or several rows in the knitting.

Answer the question : Rows ?

Tap the number of rows with the - sign before in case of a backward move.



Monitor version

D) Zoom (9)

It is used during knitting.

E) Moving to the left-hand side, moving to the right-hand side (7 and 8)

The arrows are used during knitting to move the picture of the knitting, magnified beforehand by the zoom, sideways.

LCD version

D) Zoom (9)

It indicates the following : number of knitted rows and stitches, number of needles in holding position, position of the cursor, STOP or GO position of the controller.

E) Moving to the left-hand side, moving to the right-hand side (7 and 8)

The arrows allows the user to read the information which either follows or precede the message shown in the window.

Each function is explained in detail in the instruction manual.

Description of the accessories

The floppy disks

Disk "TV programme"

The "TV Programme" disk holds the system which allows to visualize on your monitor all information given by the controller. With the "TV Programme" disk you can :

- 1) Call patterns or designs from the pattern book.
- 2) Call a shape.
- 3) Create personal patterns.
- 4) Set patterns in a shape.
- 5) Take advantage of the TV assistance for knitting.
- 6) Memorize personal colour palettes.

The patterns shown in the book from N 1 to N 499 are filed on the "TV Programme" disk.

Disk "Personal Save and Display"

This disk has three functions :

- 1) It allows you to file or memorize your personal pattern creations.
- 2) It saves a work in the process of preparation or knitting and restores it whenever you wish to.
- 3) It allows you to tap on the display of the controller the messages when using the controller without the monitor.

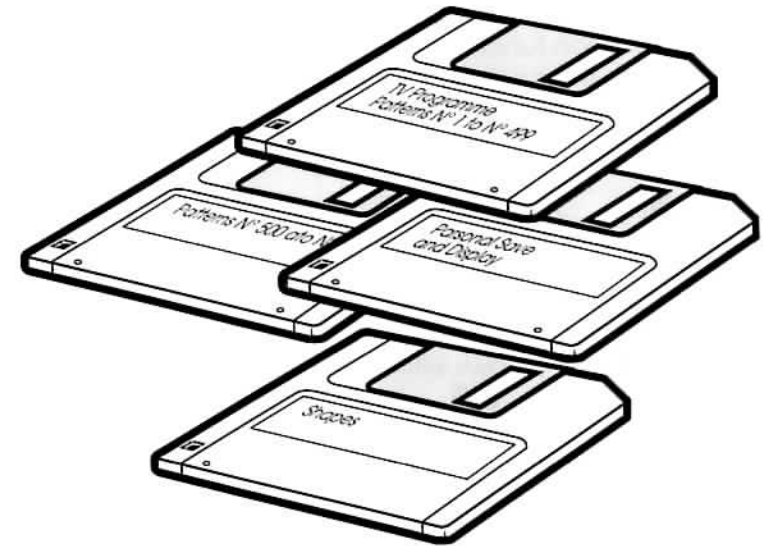
With the "Personal Save and Display" disk it is not possible to create your own patterns and set them in a shape.

Disk "Patterns"

It holds the fancy patterns of the pattern book from N° 500 to N° 869.

Disk "Shapes"

It holds all shapes of the shape encyclopedia. All sizes are memorized on the disk.

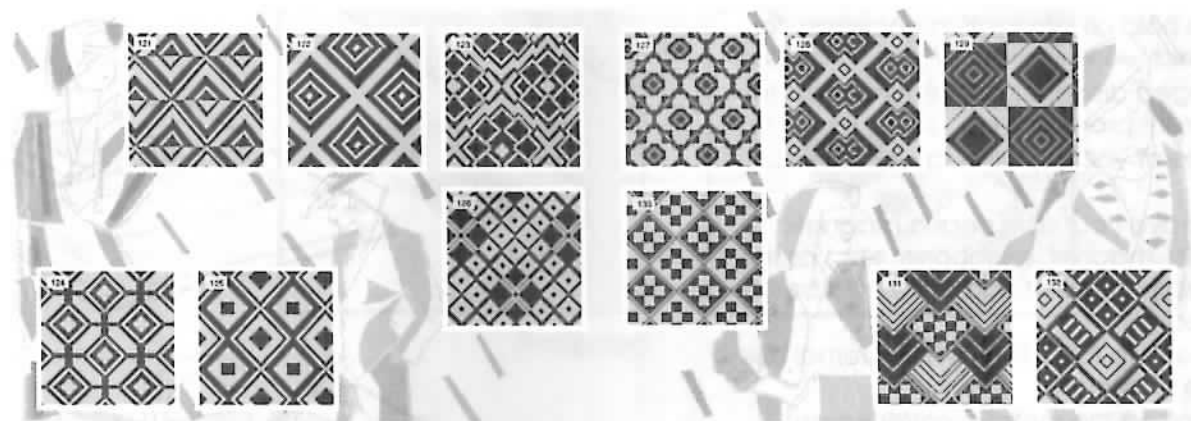


The manuals

The pattern book

It shows all patterns memorized for one part from N° 1 to N° 499 in the "TV Programme" disk and another part from N° 500 to N° 869 in the "Patterns" disk.

The patterns N° 870 to N° 901 are manual pattern stitches.



The shape library

It shows all shapes memorized in the "Shape" disks.

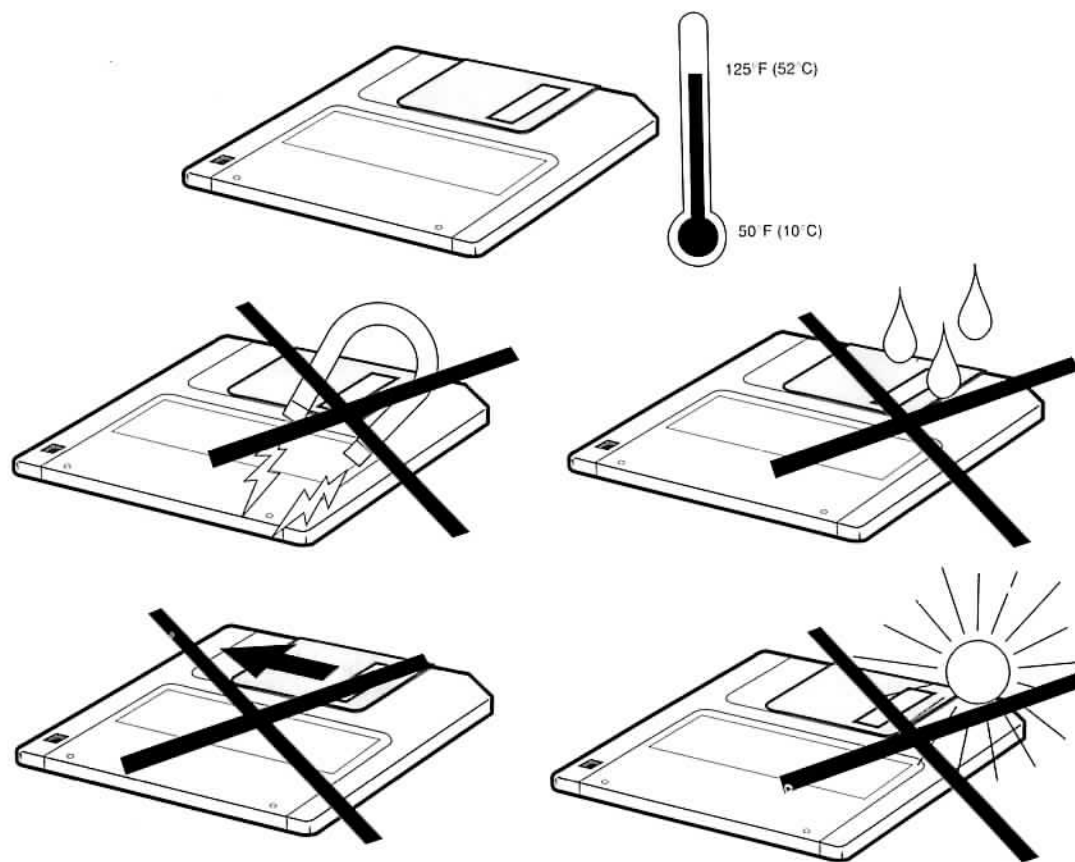


Hints

The floppy disks

The floppy disks

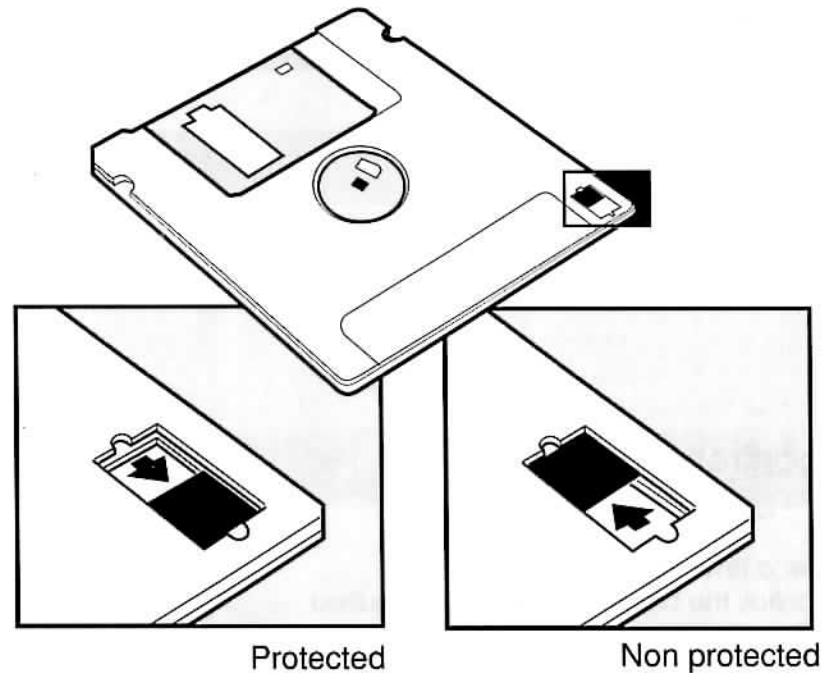
- The disks hold all information necessary for the perfect working order of the controller.
 - A damaged disk does not allow access to the different programmes.
 - Take care of your disks like for your tapes.
-
- ❑ Do not leave your disks near a magnetic source (TV, magnet, telephone, etc.) as the whole programme or part of it could be cancelled.
 - ❑ Avoid a disk to fall down as the internal disk could be scratched.
 - ❑ Avoid moving the metallic cover which gives access to the disk preventing dust.
 - ❑ Keep your disks away from humidity.
 - ❑ Do not put your disks close to a source of heat and do not expose them to sunshine.



Protection of a floppy disk

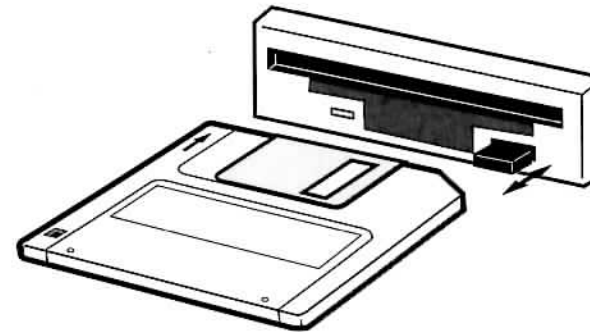
- ❑ On the wrong side of the disk, a small black block can be moved manually.
- ❑ Lower position : the disk can be read, but not written (non recorded). In this case you do not risk to erase by mistake creations already memorized on the disk.
- ❑ Upper position : the disk can be read and written (recorded).

NB : the disks "Shapes", "Patterns" and "TV Programme" provided with the machine are protected (they can not be recorded over). The protection is in the programme held on the disk.



Insertion of a floppy disk in the drive

- ❑ The direction in which the disk has to be inserted is indicated by an arrow engraved on the disk.
- ❑ Insert the disk into the drive until it is engaged : the ejector button comes out.
- ❑ Press the ejector button to release the disk.



Setting up

Moving the controller

- Slightly lift the controller holding it by its handle.
- Pull it towards you to wheel it.

Note : Your monitor must be a colour TV set equipped with a Scart plug.

Place of the controller

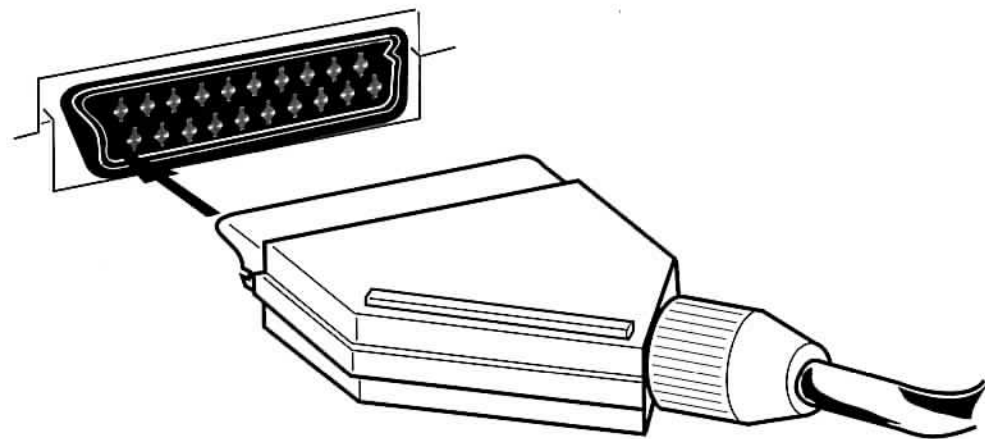
- Place the controller a few feet from your monitor.
- The bigger the monitor, the bigger the distance required.

The scart lead

- It must be connected to the rear of your monitor and to the controller.
- To allow a correct insertion of the Scart plug, make sure to put the marks opposite each other.

NB. The Scart plug of your monitor can be either horizontal or vertical.
Where monitors have two Scart plugs : refer to section "STARTING".

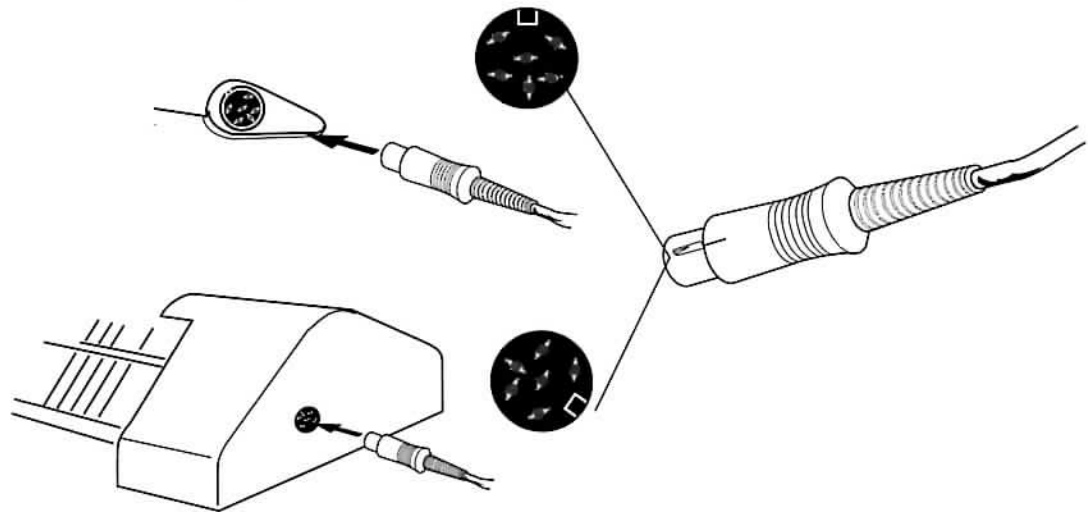
Do not connect the Scart lead when the controller is "ON".



Connection lead of knitting machine

Never connect the knitting machine to the controller when the latter is "ON".

- ❑ It is necessary to connect the lead to the knitting machine when you knit.
- ❑ The connection is made at the right-hand end of the machine.
- ❑ To allow a correct connection, make sure to put the marks opposite each other on both machine and controller.



Supply cords

- ❑ They must be plugged into an electrical outlet.
- ❑ Make sure that the electrical information on the label agrees with your power supply.

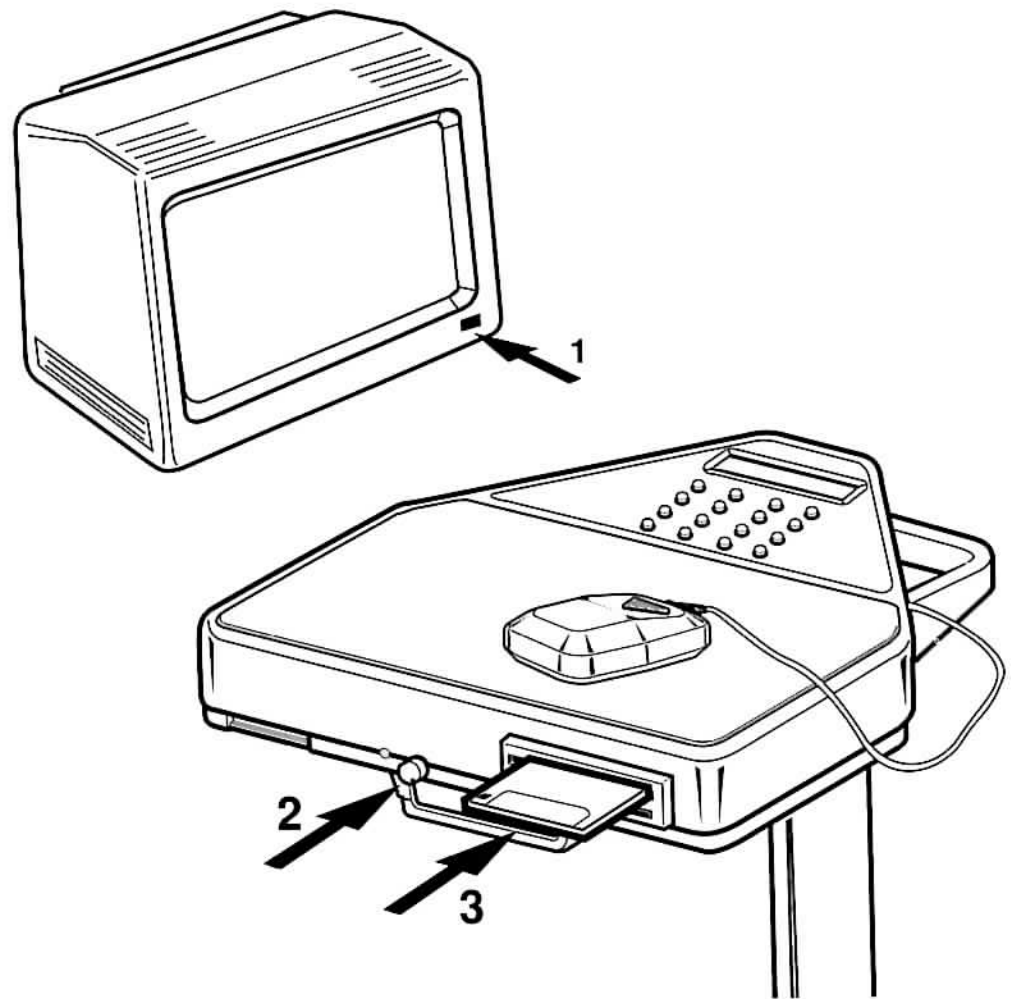
Starting

- 1) Switch on your monitor.
- 2) Switch on the controller.
 - The pilot light on the controller confirms the machine is on.
 - A BIP sound released by your monitor confirms the correct setting of the Scart lead (caution : the sound on your monitor must be on).
 - Your monitor will automatically get a plain colour, whichever channel is selected.
On some monitors it is necessary to select function A, A1 or A2 to obtain the picture generated by the controller.

For monitors with several Scart plugs : The controller will only work on one of the plugs reserved for the peripheral connection.

- 3) Insert the disk "TV Programme".
 - Wait for about 30 seconds to get the programme on the disk loaded into the controller.

Important : when the pilot light of the drive is on, the disk must not be ejected during the reading or writing process. The power supply of the controller must not be turned off.



Orientation

The first picture which appears on the monitor requires a selection.

To select a heading, press the key on the board corresponding to your selection.

Observe what is written on the monitor, but read everything before you make your selection.

1 = RESTORE
2 = SHAPES
3 = CREATION
4 = KNITTING
5 = SAVE

ENTER YOUR SELECTION (1 . . 5) ?

Content of each function

1 = RESTORE

The function which restores a saved work.

2 = SHAPES

The function which shows how :

- To find a shape in the disk "Shapes".
- To take into consideration all your data (test samples, lengths...) to work out automatically the garment to be knitted.

3 = CREATION

The most important function as it gives access to all information necessary in the preparation of a garment.

- Search for a pattern from the pattern book or a personal pattern already memorized.
- Creation of a personal pattern.
- Visualization of a shape and setting of the patterns in the shape.

4 = KNITTING

The function which shows how to discover on the monitor all information necessary to knit your garment.

At each row, the monitor indicates all manual operations to be done.

5 = SAVE

The function which shows how to memorize on the disk "Personal Save" a whole garment in preparation for knitting, or to memorize the knitting information wherever knitting is stopped.

NB. the controller requires 3 minutes to save a work and one and a half minutes to release it.

Refer to the part of your choice as required in the instruction manual.

You have selected “CREATION”

On the keyboard, tap key “3”

Operating the mouse

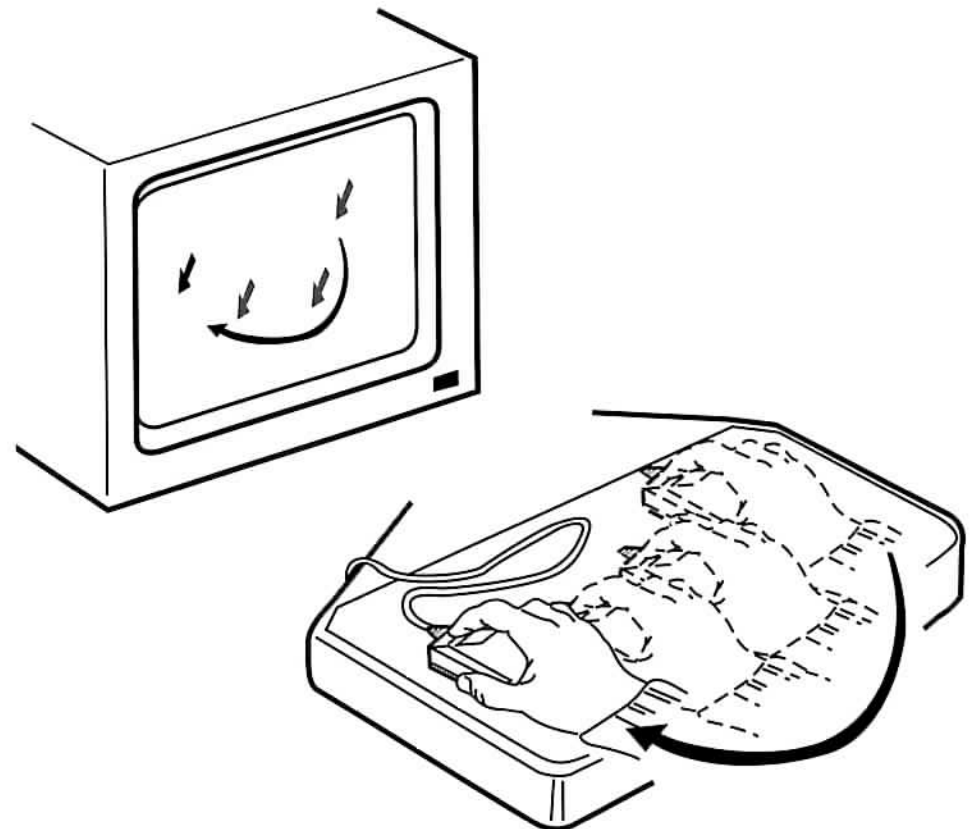
- In the programme “**CREATION**”, you will regularly use the mouse for various operations.
- To get yourself rapidly acquainted with this small tool, follow carefully our hints.

Stand in front of the monitor :

Look at the screen while moving the mouse on the controller pad. **DO NOT PRESS THE BUTTON YET.**

- Your hand must be on the side opposite to the connection cord.
- Each time you move the mouse, the arrow moves in the same direction.
- To control the movement of the mouse, the palm of the hand glides on the pad.
- If you do not have enough space to move the mouse (e.g. when you arrive at the edge of the pad), lift the mouse and put it at a different place. The act of lifting the mouse has no affect on the position of the arrow.

You will certainly hesitate at the beginning, but do not worry, you will quickly learn how to operate the mouse.



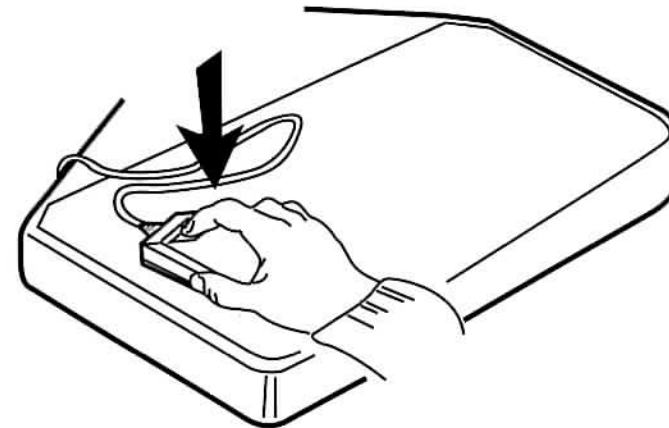
Type of knitting

- What type of pattern are you going to knit ?
According to the selected type of knitting, both "Creation" and "Knitting" programmes will automatically be adapted to.
- For all Fair Isle and Jacquards, it will be possible to select the type of knitting after having done a creation.
In this case, we suggest you use the "**Fair Isle**" type of knitting.
After creation, it is necessary to decide the final type of knitting.

To select a type of knitting :

- By means of the mouse, place the arrow on one of the seven types. Example : **Fair Isle**.
- The selected line is will become white.
- Press the button of the mouse.

SELECT : Fair Isle



How to draw

- When you move the mouse, the tool will move.
- When the tool comes off the pattern grid, it becomes an arrow.

The arrow is used to select the different possibilities found in the programme "CREATION".

The colour

Selection of a colour

You have eight colours at your disposal to create Fair Isle and Jacquard patterns with 2, 3, 4 colours, or to create patterns on multicoloured bands.

- The colour selected for drawing is located in the square found just above the colour palette. Automatically, the number of the selected colour appears in the centre of the square.

To select a colour :

- By means of the mouse, place the small arrow on the big white one located just above the colour palette.
- If you click by small touches, the colours go past one after the other in the upper square.
- If the pressure on the button of the mouse is permanent, the colours go past quicker.

Note : at the bottom of the palette, a second arrow allows you to make the selection in the opposite direction.

Select the red colour (2)

The colour (1) is mainly used as the main yarn.



1



2



The tools

Selection of a tool :

The tool selected for drawing is located in the square found just above the tool column.

To select a tool :

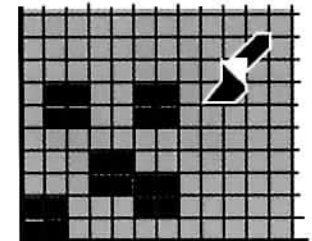
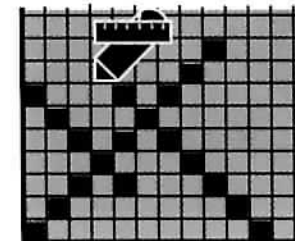
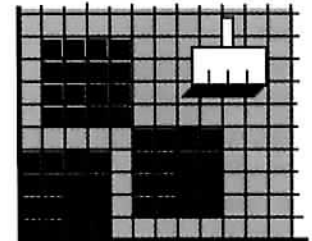
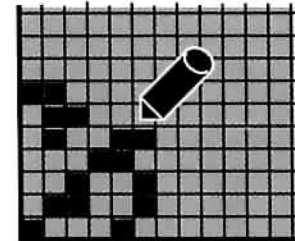
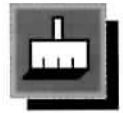
- By means of the mouse, place the small arrow on the big white one located just above the tool column.
- If you click by small touches, the tools go past one after the other in the upper square.
- If the pressure on the button of the mouse is permanent, the tools go past quicker.

Function of the different tools :

The tools are only used in conjunction with drawing.

- **The pencil** : each time you click, the square corresponding to the tip of the pencil is coloured. If the pressure on the button of the mouse is permanent, the squares behind are continuously coloured in relation with the moving direction of the mouse.
- **The brush** : each time you click, 16 squares are coloured. The coloured section goes from the base of the bristles to the edge of the handle of the brush. If the pressure on the button of the mouse is permanent, a line of 4 squares are continuously coloured, both in height and width in relation to the moving direction of the mouse.
- **The pencil and the ruler** : each time you click, the square corresponding to the tip of the pencil is coloured. If the pressure on the button of the mouse is permanent, you can draw and adjust lines (straight, oblique, horizontal or vertical ones). The line drawn is definitively written as soon as you stop to press on the button of the mouse (release the pressure).
- **The paint brush** : each time you click, 4 squares are coloured. The coloured section corresponds to the bristles of the paint brush. If the pressure on the button of the mouse is permanent, a line of 2 squares are continuously coloured, both in height and width in relation to the moving direction of the mouse.

To erase a part of a created pattern, select the main colour and use the best tool to cover the square (s) to be modified.



The pattern grid, function "ZOOM" and "MAGNIFYING GLASS"

The pattern grid

This is the space reserved for the creation of a pattern or the placement of a pattern already filed on a disk. Two versions of the pattern grid are accessible.

1) Magnified version :

The pattern grid shows a surface of 51 squares in width and 47 squares in height.

The magnified version is used to create geometric patterns, small decorative patterns, or to finalize decorative patterns.

2) Enlarged version : ZOOM

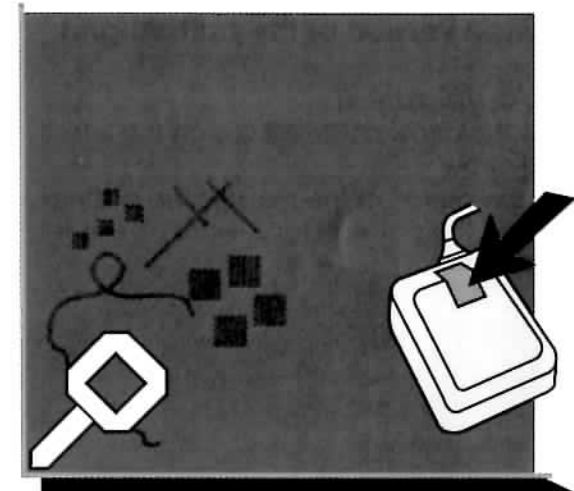
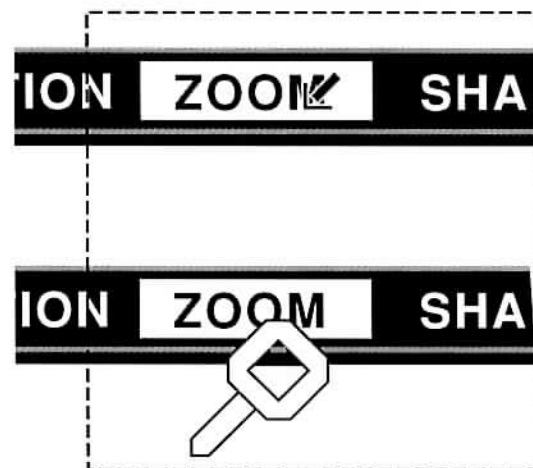
- By means of the mouse, place the arrow on "ZOOM".
- The background of "ZOOM" becomes white, the letters are black.
- Click only once to confirm the selection : the pattern grid changes ; it shows a very narrow surface of 180 squares in width and 188 squares in height.

The enlarged version is mainly used to create decorative patterns or to better visualize a complete geometric pattern.



3) Back to the magnified version : MAGNIFYING GLASS

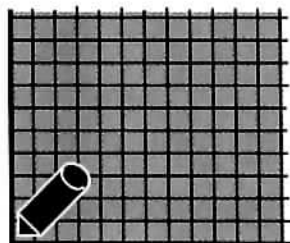
- By means of the mouse, place the arrow on "ZOOM" and click.
- The magnifying glass you, allows you to magnify the section you want. The centre of the magnifying glass must be placed on the section to be magnified.
- To come back to the starting point, place the magnifying glass in the lower left-hand corner of the pattern grid and click.



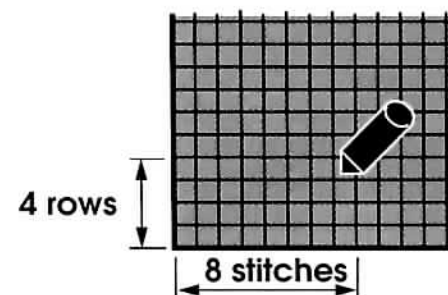
Indication of stitches and rows

- The position of the lower left-hand tip of each tool is written on the monitor next to the signs S (stitches) and R (rows).

S : 1 R : 1



S : 8 R : 4



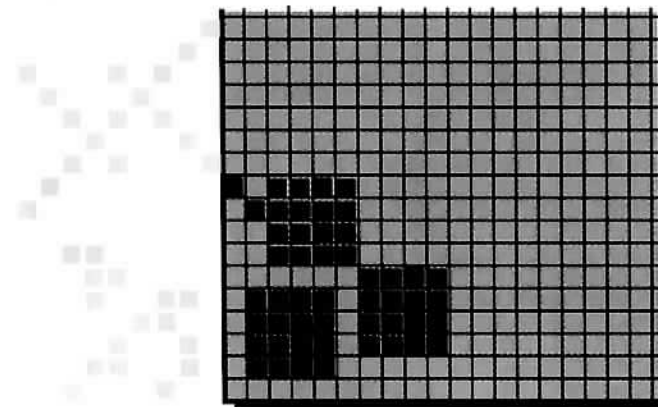
The shift symbols

They allow you to shift the pattern grid in order to give access to a new part.

Magnified version of the pattern grid

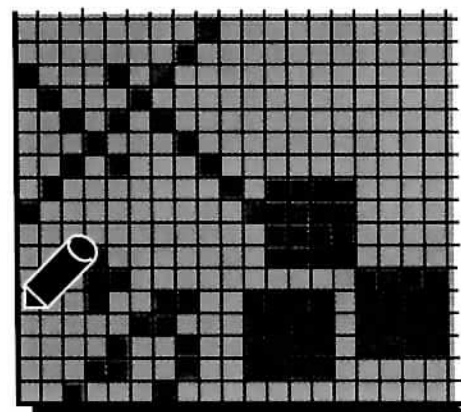
Horizontal shift symbol :

- Place the arrow of the mouse on the left-hand arrow.
- Press the button of the mouse ; the pattern grid and the pattern shift towards the left-hand side.



The shift symbols (continued)

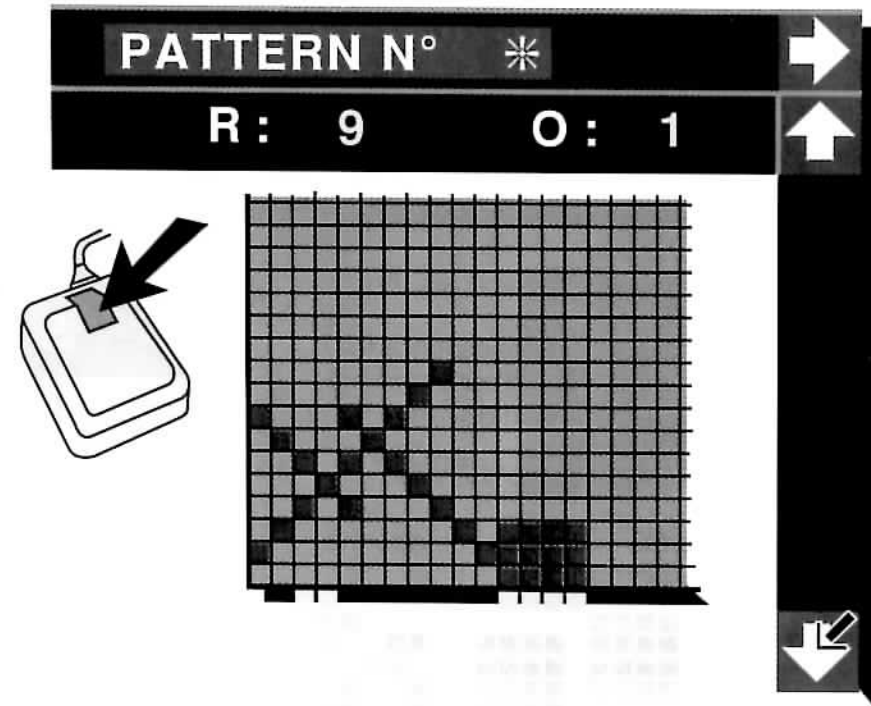
- Place the arrow of the mouse on the right-hand arrow.
- Press the button of the mouse ; the pattern grid shifts to the right-hand side.
- The stitch counter S works when you use the horizontal shift symbol.
The indication which is shown corresponds to the position of the arrow of the mouse and not to the position of the edge column of the pattern grid.
In this case, the indication is approximate.
- **To get a more accurate indication**, replace the tool on a line of the pattern grid.
Sign :
The first left-hand column is located by M1.
The last accessible right-hand column is located by M 180.



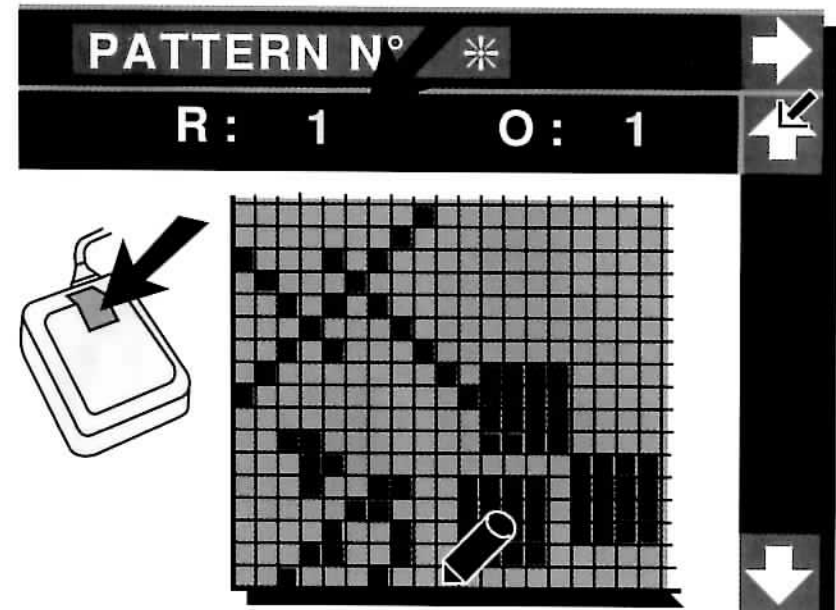
The shift symbols (continued)

Vertical shift symbol :

- Place the arrow of the mouse on the lower arrow.
- Press the button of the mouse ; the pattern grid shifts downwards.
- Place the arrow of the mouse on the upper arrow.
- Press the button of the mouse ; the pattern grid shifts upwards.



- The row counter R works when you use the vertical shift symbol.
The indication which is shown corresponds to the position of the arrow of the mouse and not to the position of the edge line of the pattern grid.
In this case, the indication is approximate.
- To get a more accurate indication**, replace the tool on a line of the pattern grid.
Sign :
The first line at the bottom is located by R1.
The last accessible top line is located by R 512.



The shift symbols (continued)

Enlarged version of the pattern grid

- The horizontal shift symbol is not accessible.
- In width, the 180 squares are available on the monitor and correspond to the 180 needles of the knitting machine.

Vertical shift symbol :

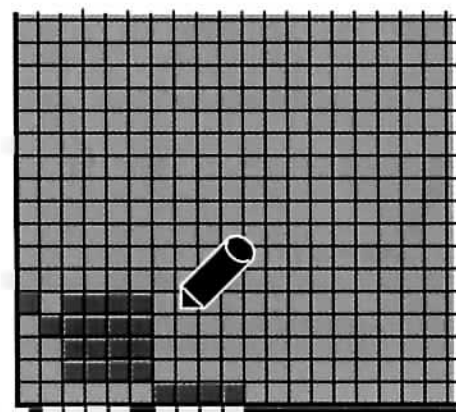
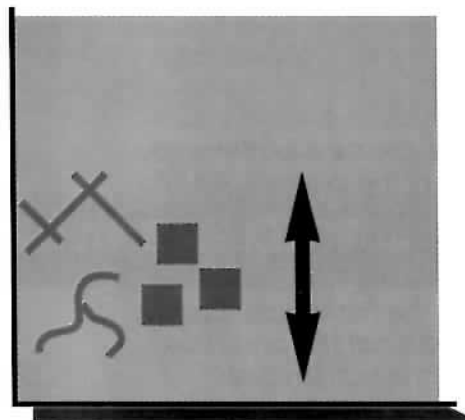
- Place the arrow of the mouse on the lower arrow.
- Press the button of the mouse ; the pattern grid shifts downwards.
- Place the arrow of the mouse on the upper arrow.
- Press the button of the mouse ; the pattern grid shifts upwards.

Sign :

The first line at the bottom is located by R1.
The last accessible line at the top is located by R 512.

CAUTION :

- The indications S (stitches) and R (rows) given by the position of the tool on the pattern grid take into account the parts shifted by the shift symbols and which are not visible on the monitor.

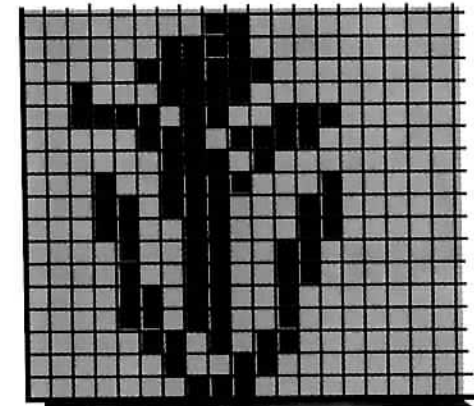
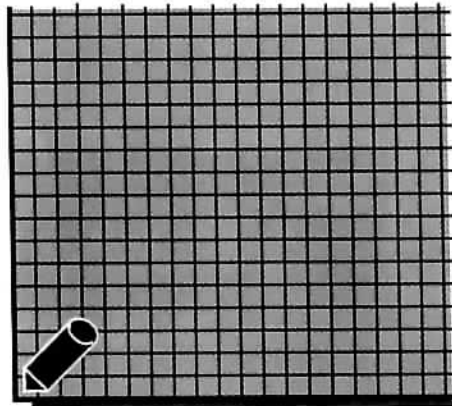


Where to draw ...

Caution : Before starting to create a pattern, you must take the placement of the pattern grid into consideration.

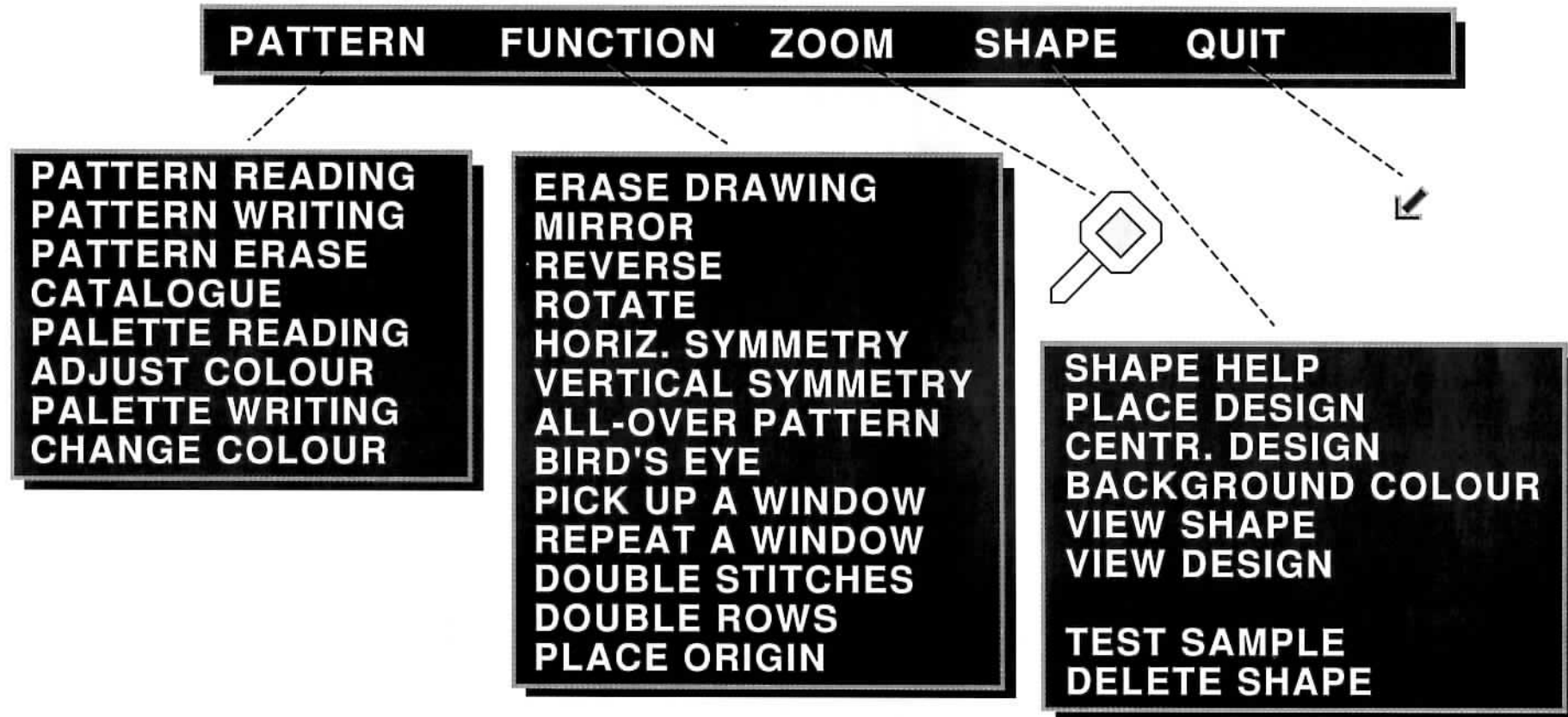
- ❑ Place the tool in the lower left-hand corner of the pattern grid, just on the first square. Both M and R must show 1. If this is not the case, use the shift symbols to shift the pattern grid.
- ❑ Create your pattern in relation with the first left-hand column and the first line at the bottom.
- ❑ The blank columns located at the left-hand side of the pattern as well as the blank lines located under the pattern are part of the pattern.
- ❑ The stitch and row indicators take into account the parts shifted by means of the shift symbols (i.e. not visible).

S: 1 R: 1 O: 1



Main menu

Main menu and its possibilities



Each heading of the main menu allows several possibilities.

How to select a heading from the menu

To select a heading and discover its possibilities :

You do :

- Place the arrow of the mouse on the menu "PATTERN".

See :

- The background of the pattern becomes white.

You do :

- Press the button of the mouse and **hold the pressure**.

See :

- These various possibilities are accessible.

You do :

- Without releasing the pressure on the button, move the arrow of the mouse so as to place it on the line "PATTERN READING".

See :

- The background of "PATTERN READING" becomes white.

You do :

- Release the pressure on the button of the mouse.

See :

- The selection is made.

To abandon the selection and finish the example : by means of the keyboard, write the figure "0" and press key "E".

PATTERN FUNCTION ZOOM SHAPE QUIT



PATTERN READING
PATTERN WRITING
PATTERN ERASE
CATALOGUE
PALETTE READING
ADJUST COLOUR
PALETTE WRITING
CHANGE COLOUR



PATTERN READING
PATTERN WRITING
PATTERN ERASE
CATALOGUE
PALETTE READING
ADJUST COLOUR
PALETTE WRITING
CHANGE COLOUR



PATTERN READING
Enter its number
(Ø = abandon)

Using the pointer

In the headings "FUNCTION, PATTERN, SHAPE", the fact of calling certain possibilities gives access to a pointer which allows you to act on the basic pattern.

To use the pointer, refer to the following instructions.

1. The pointer is represented by a cross.
2. Its centre is transparent to allow a better sight of its position in relation to the selection you are going to make.
3. The values S (stitches) and R (rows) shown correspond to the position of the centre of the pointer.
4. The left-hand branch and the bottom branch of the pointer determine the section which will be influenced by the selected function. The section covered by the branches is taken into account.

Caution : - With the magnified version, the centre of the pointer can be placed onto the first line of the pattern grid.

- With the enlarged version, the centre of the pointer can not be placed onto line 1, 2 and 3 of the pattern grid.

5. In order that the selected function can act on the pattern, it is necessary to place the centre of the pointer on the right-hand side on top of the basic pattern. It is the method which is used the most.
6. You can modify parts of a pattern by placing the pointer inside or outside a pattern. It is always the section between the left-hand branch and the bottom branch of the pointer which will be taken into account.
7. As soon as the pointer is correctly positioned, just press once the button of the mouse to obtain the required effect.

Particular case : You can hold the pressure on the button of the mouse whilst moving it, thus obtaining specific effects. These effects can hardly be mastered as they depend upon the speed at which the mouse is moved.

Caution : The pointer can disappear for a few seconds, just the time required by the controller to work out a new position of the pattern (s).

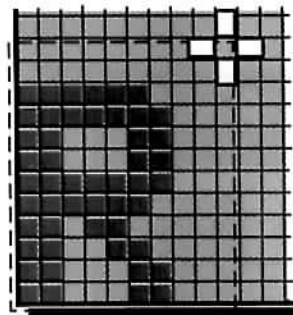
1



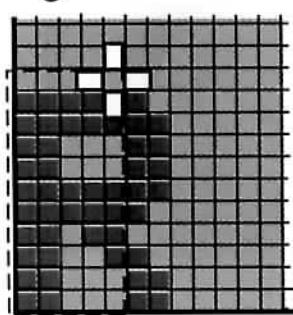
2



4

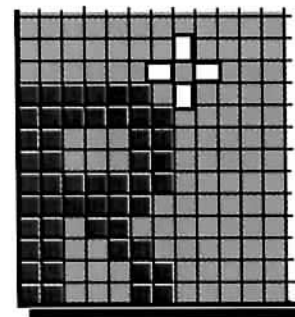


6

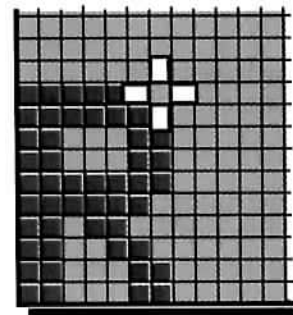


3

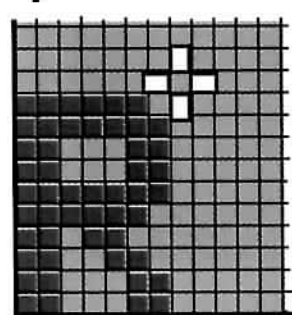
S : 8 R : 11



5



7



TV

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Function

The various possibilities of the heading "FUNCTION" allow to modify aspects of a basic pattern.

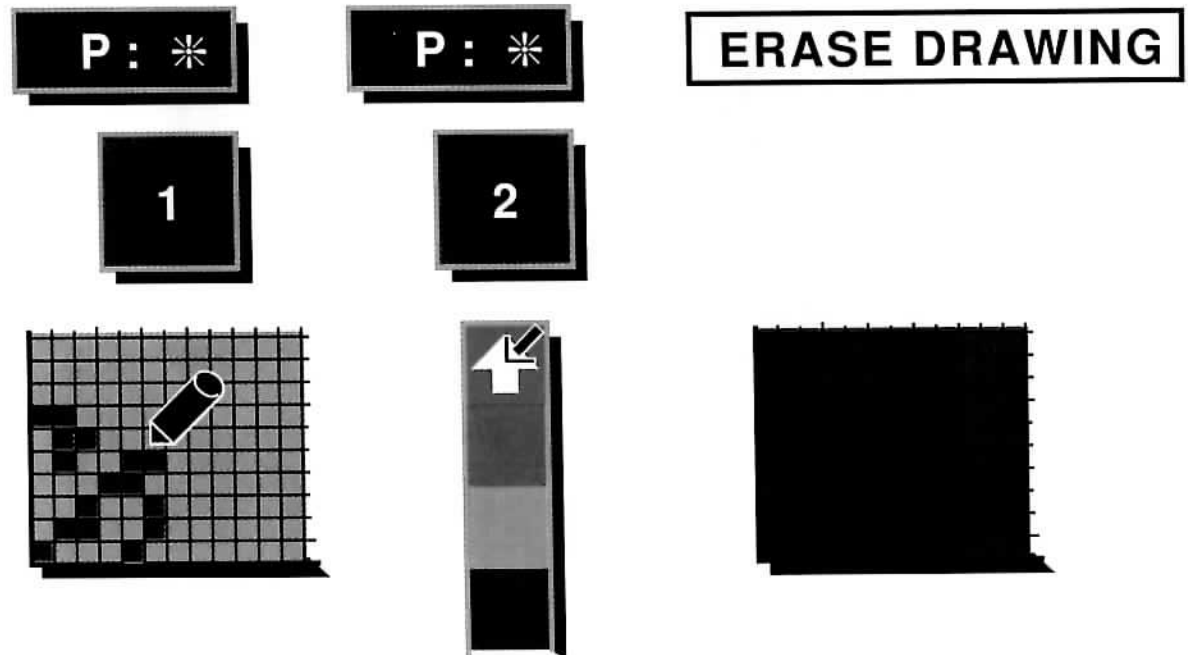
Even when creating a small pattern, it is possible to obtain interesting patterns if using these possibilities.

The possibilities of the heading "FUNCTION" can be used on the pattern grid in both **Magnified** and **Enlarged Versions**.

ERASE DRAWING

This is the quickest way to erase a whole pattern prepared on the monitor.

- After having selected function "ERASE DRAWING", the pattern grid turns into the selected colour.



MIRROR

This function allows to invert the pattern, as seen in a mirror.

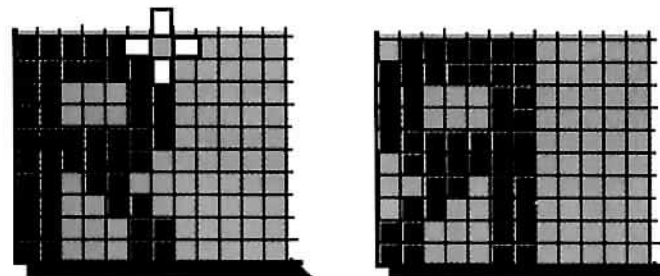
- After having selected function "**MIRROR**", use the pointer to move the function.
The left-hand side of the pattern is placed at the right-hand side and the right-hand side of the pattern is placed at the left-hand side.
- The shift symbols and the function "**ZOOM**" are accessible.
- Quit function "**MIRROR**" by placing the pointer on "**QUIT**", then press the button of the mouse.
- Use of the pointer : refer to the instructions on page 29.

REVERSE

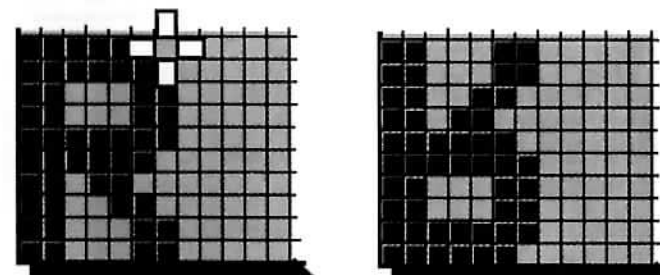
This function allows to reverse the pattern by placing the bottom at the top and the top at the bottom.

- After having selected function "**REVERSE**", use the pointer to move the function.
The top of the pattern is placed at the bottom and the bottom of the pattern is placed at the top.
- The shift symbols and the function "**ZOOM**" are accessible.
- Quit function "**REVERSE**" by placing the pointer on "**QUIT**", then press the button of the mouse.
- Use of the pointer : refer to the instructions on page 29.

MIRROR



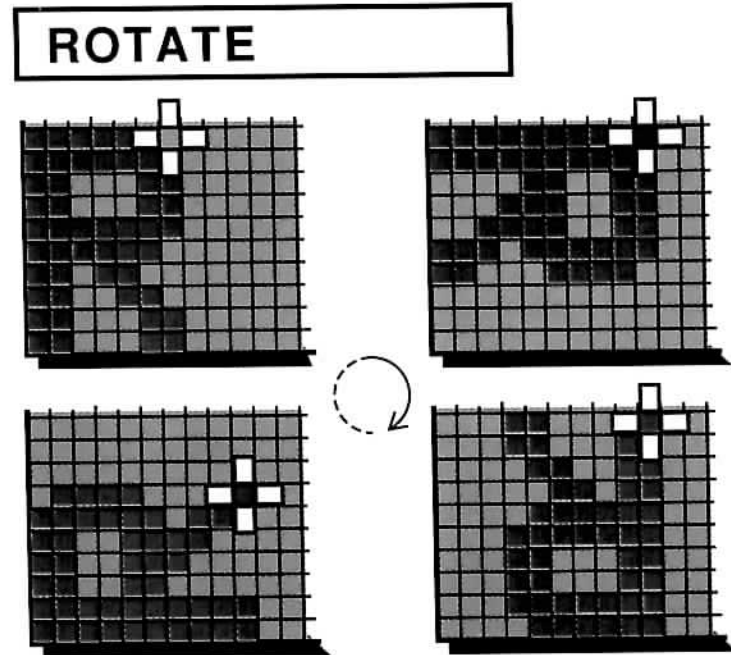
REVERSE



ROTATE

This function allows you to rotate the pattern by a quarter turn as if the base of the pattern would move each time to the side of a square having the same size as the biggest side of the pattern. The rotation is done clockwise.

- After having selected function "ROTATE", use the pointer to move the function.
- The shift symbols and the function "ZOOM" are accessible.
- Quit function "ROTATE" by placing the pointer on "QUIT", then press the button of the mouse.
- Use of the pointer : refer to the instructions on page 29.



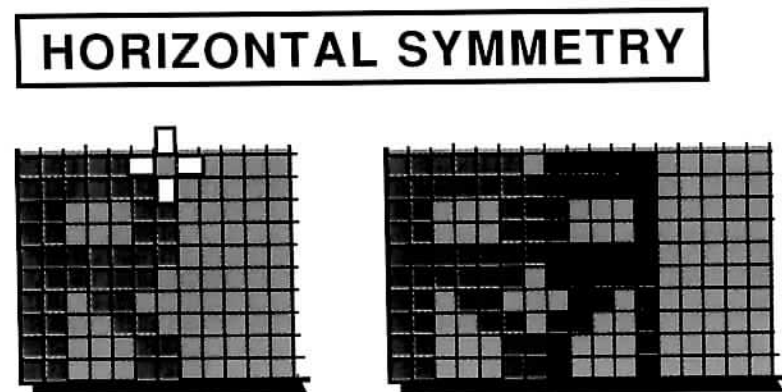
HORIZONTAL SYMMETRY

- This function allows you to create automatically and to show on the monitor the horizontal symmetry of a pattern. The first and the last column of the pattern are not repeated.

Magnified version of the pattern :

The pattern modified by the symmetry can be superior to the 51 squares or stitches visible on the monitor. In this case, the pattern shifts automatically to the left-hand side without having to use the horizontal shift symbol.

- The shift symbols and the function "ZOOM", are accessible.
- Quit function "HORIZONTAL SYMMETRY" by placing the pointer on "QUIT", then press the button of the mouse.
- Use of the pointer : refer to the instructions on page 29.



VERTICAL SYMMETRY

- This function allows you to create automatically and to show on the monitor the vertical symmetry of a pattern. The first and the last line of the pattern are not repeated.

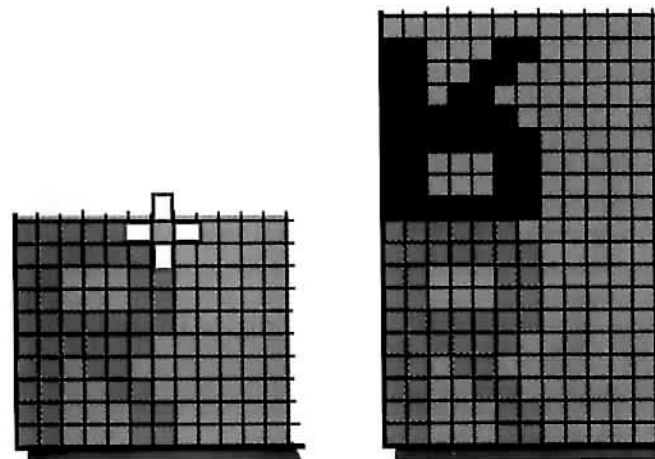
Magnified version of the pattern :

The pattern modified by the symmetry can be superior to the 47 squares or rows visible on the monitor.

In this case, the pattern shifts automatically downwards without having to use the vertical shift symbol.

- The shift symbols and the function "ZOOM" are accessible.
- Quit function "VERTICAL SYMMETRY" by placing the pointer on "QUIT", then press the button of the mouse.
- Use of the pointer : refer to the instructions on page 29.

VERTICAL SYMMETRY



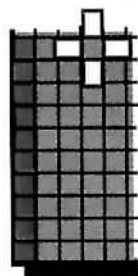
HORIZONTAL/VERTICAL SYMMETRY

Caution : A pattern and its symmetry show as incomplete. The complement is done automatically with the function "ALL-OVER PATTERN" (see next page).

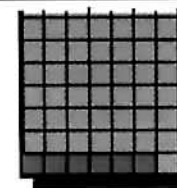
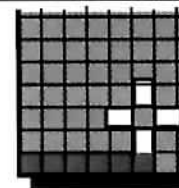
Specific cases :

- Function "HORIZONTAL SYMMETRY" does not influence a pattern created on the first column of the grid as this column is not repeated.
- Function "VERTICAL SYMMETRY" does not influence a pattern created on the first line of the grid as this line is not repeated.

HORIZ. SYMMETRY



VERTICAL SYMMETRY



ALL-OVER PATTERN

- The function "**ALL-OVER PATTERN**" allows you to automatically repeat the basic pattern.

All squares (180 in width and 512 in height) are filled with the multiplied pattern.

What you actually see is what you could knit.

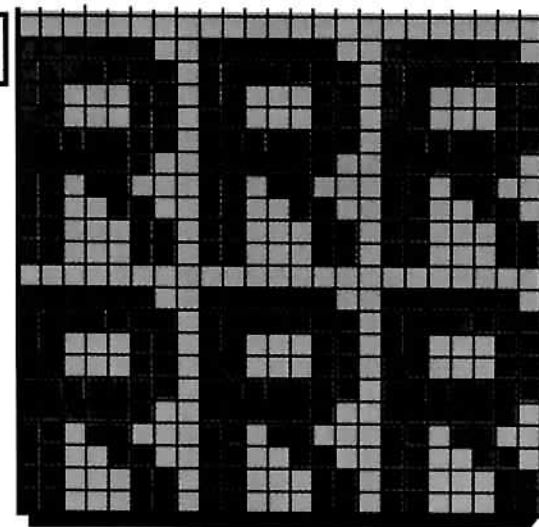
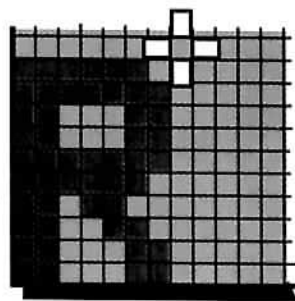
- The shift symbols and the function "**ZOOM**" are accessible.
- Quit function "**ALL-OVER PATTERN**" by placing the pointer on "**QUIT**", then press the button on the mouse.
- Use of the pointer : refer to the instructions on page 29.

Specific cases :

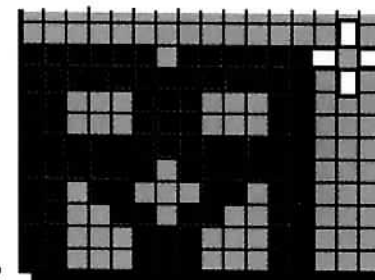
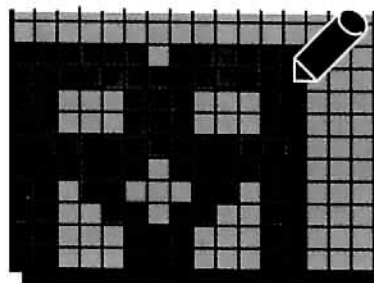
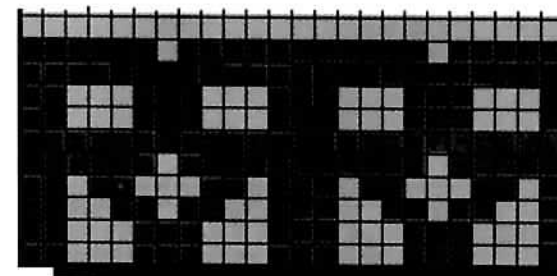
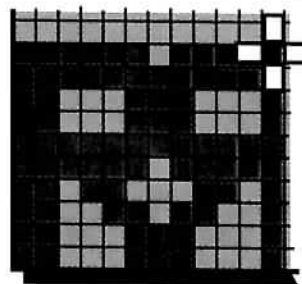
- For a pattern with a symmetry in width or in height, the complement of the pattern is done automatically if the centre of the pointer is placed on the right-hand side on top of the pattern.
- To place a pattern using a symmetry, if a space is required between each pattern, it is compulsory to finish a pattern by using the tools. Then, place the pointer at the required place to get the "**ALL-OVER PATTERN**".

N.B. Complete as well the patterns with symmetry if they are used as single patterns.

ALL-OVER PATTERN



ALL-OVER PATTERN



BIRD'S EYE

- ❑ Function "**BIRD'S EYE**" allows you to get automatically a grid with two alternate colours (one colour per square).

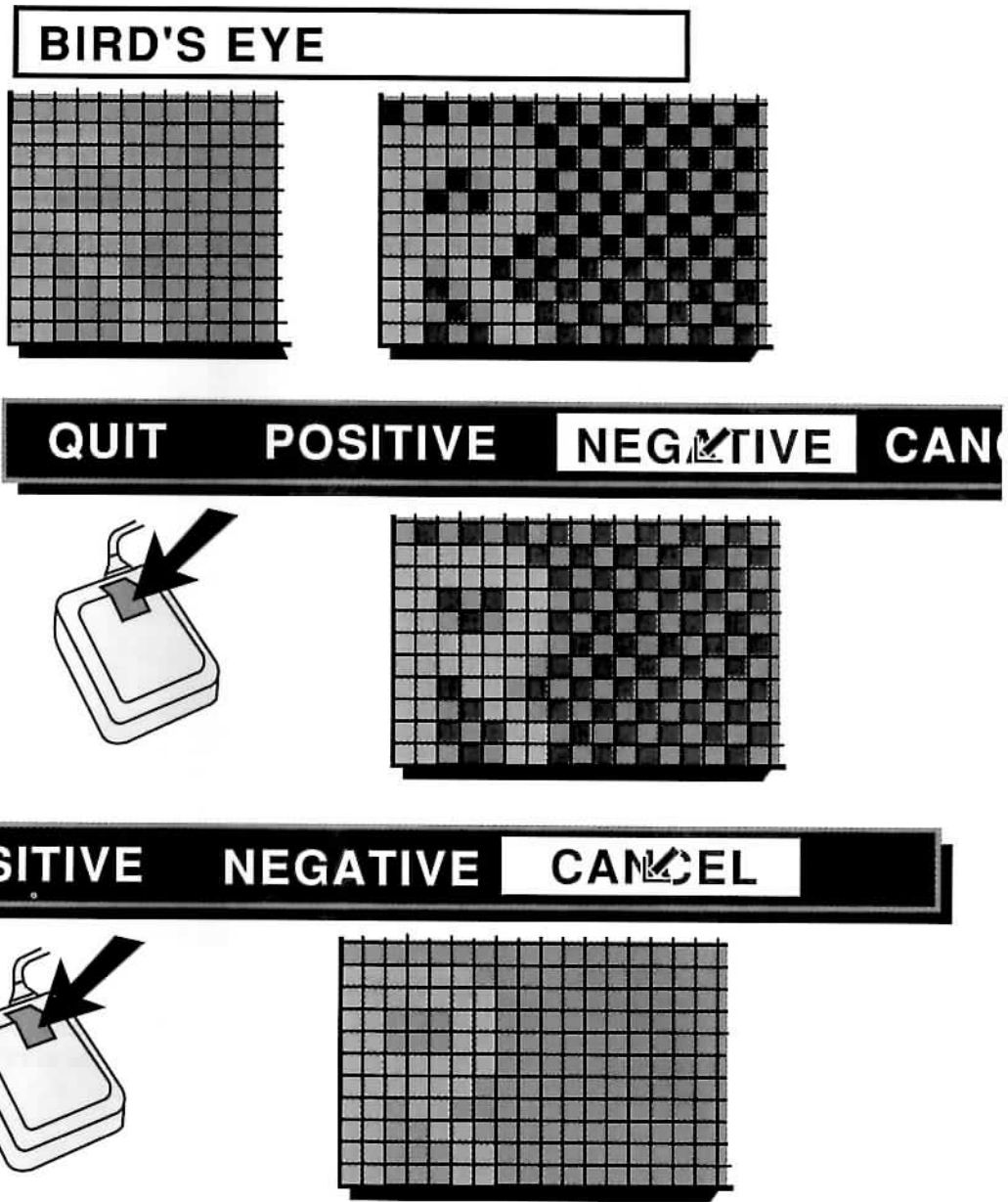
Caution : The two colours selected automatically are colour 1 and 2.

To allow this function to be used, the background of the monitor or the background of the pattern must be in colour 1.

- ❑ To reverse the colour of the squares, place the arrow on "**NEGATIVE**" and press the button of the mouse.
- ❑ To get back the initial position, place the arrow of the mouse on "**POSITIVE**" and press the button of the mouse.

Note : The positions "**POSITIVE**" or "**NEGATIVE**" can naturally change the aspect of a pattern which would already be in place.

- ❑ To cancel function "**BIRD'S EYE**", place the arrow on "**CANCEL**" and press the button of the mouse. The background of the monitor turns into colour 1.
- ❑ Quit function "**BIRD'S EYE**" by placing the arrow on "**QUIT**", then press the button of the mouse.



PICK UP A WINDOW

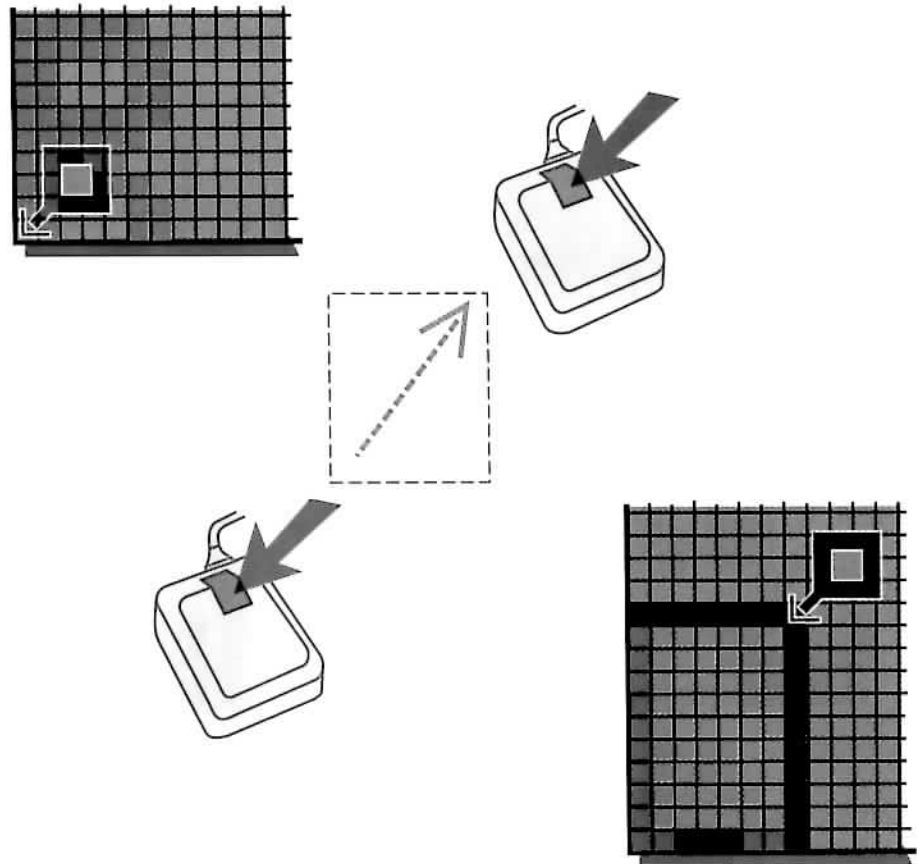
The function "**PICK UP A WINDOW**" allows you to pick up all or part of a pattern and to keep it memorized in the controller as long as this one is in working position.

- ❑ The pattern which is picked up is restored with function "**REPEAT A WINDOW**". It is advisable to use colour 1 as background colour (refer to "**REPEAT A WINDOW**" page 37).
- ❑ After having selected "**PICK UP A WINDOW**", a small window with an arrow appears automatically.
- ❑ Place the tip of the arrow into the left-hand bottom corner of the pattern to be picked up.
- ❑ Press the button of the mouse and **hold the pressure**.
- ❑ Move the mouse towards the right-hand side and the top in order to extend the window and frame the pattern to be picked up. The blinking frame black/white belongs to the window.
- ❑ You can modify the sizes of the window if the pressure on the button of the mouse is held.
- ❑ The window is picked up as soon as you release the pressure on the button of the mouse.

CAUTION : Only one window can be memorized ; it is necessarily the last one which was picked up which is saved.

- The shift symbols and the function "**ZOOM**" are accessible.
- Quit function "**PICK UP A WINDOW**" by placing the small window with an arrow on "**QUIT**", then press the button of the mouse.

PICK UP A WINDOW

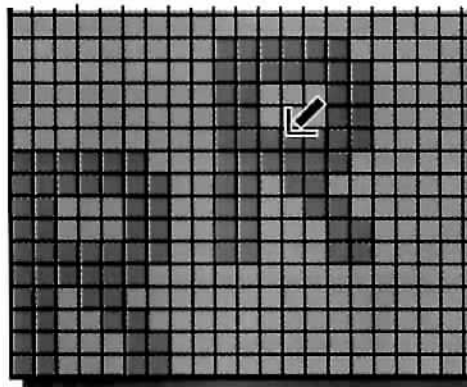


REPEAT A WINDOW

This function allows you to restore on the monitor a pattern picked up previously by means of the function "PICK UP A WINDOW".

- The pattern moves by means of the mouse.
- If another colour (2, 3, 4 ...) has been used as background, it is the pattern as well as the background which are restored.
- The pattern moves by means of the mouse.
- To set a pattern at a precise place, press the button of the mouse. The pattern sets at the selected place.
- You can obtain specific effects :
 - 1) by repeating and placing the same pattern at different places,
 - 2) by holding the pressure on the button of the mouse whilst moving it.

REPEAT A WINDOW



PICK UP A WINDOW - REPEAT A WINDOW

Both functions have been used to create the decorative patterns N° 621 to 710.

- Use both functions to build and create your own patterns from the basic patterns you are offered or from any other pattern.

Caution : You must not create your own patterns with more than four colours on a same line (ignore this caution when you use the optional accessory "Intarsia Carriage").

DOUBLE STITCHES

The function "DOUBLE STITCHES" allows you to double automatically each square in width.

If this function is used several times, the same pattern can be multiplied in width by 2 - 4 - 6 - 8, etc.

Magnified version of the pattern :

The magnified pattern can be superior to the 51 squares or stitches visible on the monitor. In this case, the pattern shifts automatically towards the left-hand side without having to use the horizontal shift symbol.

- The shift symbols and the function "ZOOM" are accessible.
- Quit function "DOUBLE STITCHES" by placing the arrow on "QUIT", then press the button of the mouse.
- Use of the pointer : refer to the instructions on page 29.

DOUBLE ROWS

This function allows you to double automatically each square in height.

If this function is used several times, the same pattern can be multiplied in height by 2 - 4 - 6 - 8, etc.

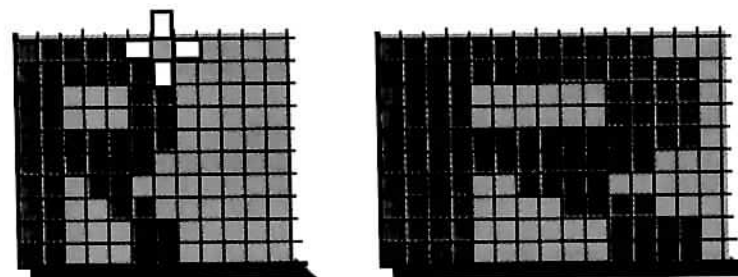
Magnified and enlarged version of the pattern :

The magnified pattern can be superior to the number of squares or rows visible on the monitor.

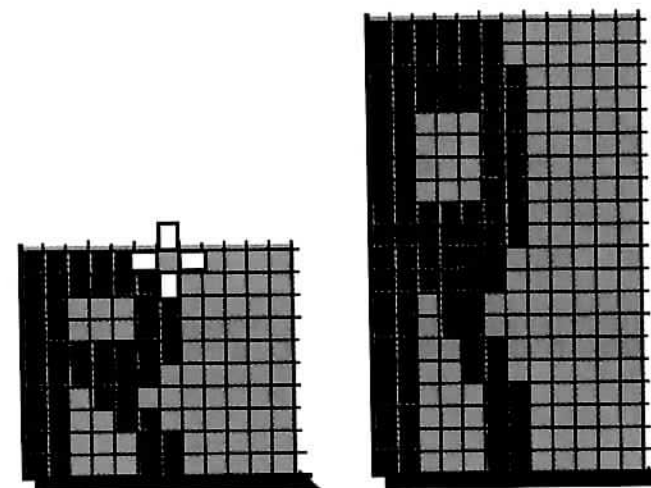
In this case, the pattern shifts automatically downwards without having to use the vertical shift symbol.

- The shift symbols and the function "ZOOM" are accessible.
- Quit function "DOUBLE ROWS" by placing the arrow on "QUIT", then press the button of the mouse.
- Use of the pointer : refer to the instructions on page 29.

DOUBLE STITCHES



DOUBLE ROWS



PLACE ORIGIN

This function allows you to protect a pattern which must not be influenced by some specific functions.

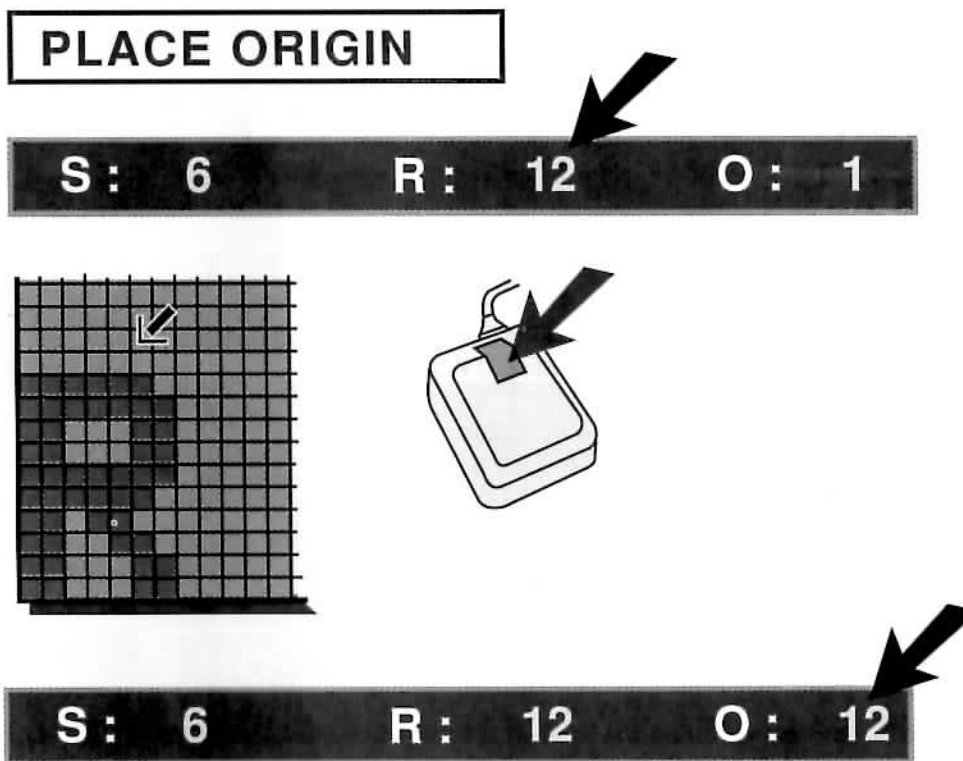
- ❑ After having selected "**PLACE ORIGIN**", place the tip of the arrow onto the selected line and press the button of the mouse : example, 12.
- ❑ Next to O (origin), the number of the selected line is shown : example, 12.
- ❑ The pattern (s) placed under the line ORIGIN, can not be influenced by :
 - 1) "**ERASE DRAWING**" : the pattern stays ; only the section placed above the origin is erased.
 - 2) "**FUNCTION**" : Mirror - Reverse - Rotate - Horizontal symmetry - Vertical symmetry - All-over pattern - Double stitches - Double rows.

Caution : The characteristic of "**CHANGE COLOR**" in the heading "**PATTERN**" does not influence the pattern (s) placed under the ORIGIN.
Refer to the instructions of "**CHANGE COLOR**" page 50.

Caution : The characteristic of "**PLACE DESIGN**" the heading "**SHAPE**" does not take into account what is placed under the ORIGIN.
Refer to the instructions of "**PLACE DESIGN**" on page...

Caution : The origin replaces itself automatically to 1 when you quit "**CREATION**".
Refer to the instructions in the section "Preparation before knitting" on page 66

None of the other functions of the main menu is influenced by "**PLACE ORIGIN**". You may even draw on the "protected" section.



TV

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Pattern

PATTERN READING

This means looking for a pattern memorized on a floppy disk.

After having selected "PATTERN READING" :

- Insert the disk holding the pattern (do not change disk if the required pattern is found on the disk "TV PROGRAMME").
- By means of the keyboard, tap the number of the selected pattern.
- Press key "E" to enter your selection. A few seconds are necessary to bring the pattern on the monitor :
WORKING...

If the pattern is not on the disk inserted in the controller, the information **DISK ERROR** followed by **Not found** will show on the monitor.

- Press a key to continue.

- To magnify a pattern, use the magnifying glass of the function "ZOOM".
- The number of the pattern shows on the monitor, next to "PATTERN".

For the patterns from the pattern catalogue, refer to the instructions page 86.to 120.

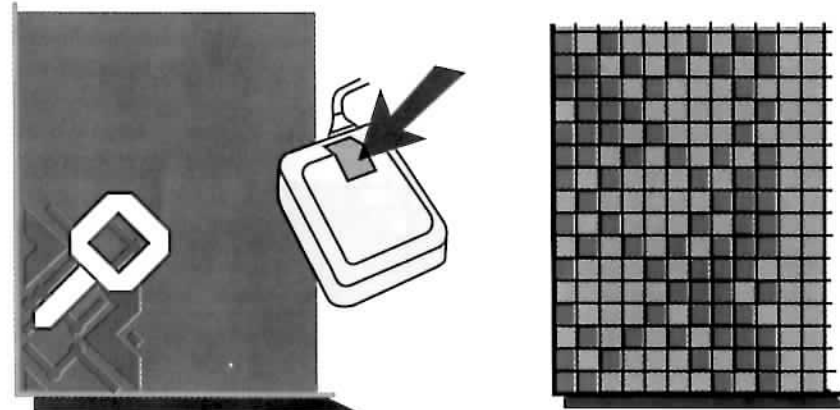
CAUTION : the patterns from the catalogue are placed automatically in the lower left-hand corner of the pattern grid.

PATTERN READING

PATTERN READING
Enter its number
(Ø = abandon)

45_

WORKING . .



PATTERN WRITING

After having selected "PATTERN WRITING" :

- A self-created pattern can be memorized on the disk "PERSONAL SAVE AND DISPLAY".
- For safety reasons we recommend to record twice your creations, but on two different disks. In this case, it will be necessary to purchase extra floppy disks.
- For self-repeating patterns, it is better to write only the basic pattern. The bigger the pattern, the larger the space needed on the disk. Refer to the instructions in "CATALOGUE" on page 45.

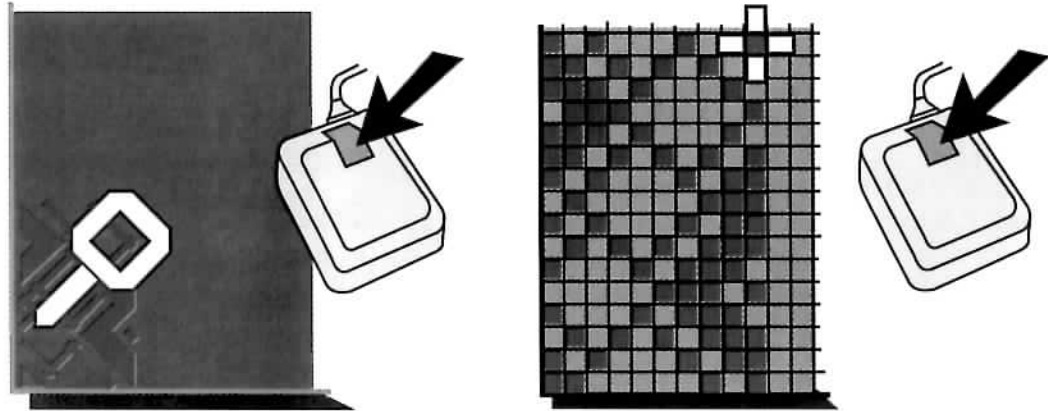
After having selected "PATTERN WRITING" :

- Insert "SAVE" Disk.
- By means of the magnifying glass, magnify the upper right-hand part of the pattern.
- Place the pointer according to your choice to be memorized (refer to the instructions POINTER on page 29).
- To remember better a memorized pattern, you can write a comment. Answer YES or NO to this question.
- You have answered **NO** :
 - Tap on the keyboard the number you have given to your pattern. Press key "E" to enter your choice. A few seconds are necessary to record the pattern.

∅ = abandon

You can cancel your choice "PATTERN WRITING" by entering figure 0 and pressing "E".

PATTERN WRITING



Comment ?

NO

YES

PATTERN WRITING

Enter its number
(∅ = abandon)

45_

WORKING . .

TV

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PATTERN WRITING (continued)

- ❑ You have answered **YES** to write a comment :
 - If the pattern shown on the monitor has already been recorded with a comment, this will be proposed again before alteration (it is the case of a pattern called for modification).
 - If the pattern is new, no comment is written.
- ❑ Select **NO** by means of the arrow of the mouse.

- ❑ To choose and select letters, figures or symbols from the keyboard, place the white frame on a letter, then press the button of the mouse. The letter is written at the bottom of the monitor.

- You can select a space if you place the white frame between the letter M and the small dot.
- A bip sound confirms the selection of your choice.
- Only one line can be written.
- To erase the incorrect section, letter after letter, place the arrow of the mouse on "**CLEAR**".
- By each pressure on the button of the mouse, it clears the last letter.
- To clear quickly a whole word, place the arrow of the mouse onto "**CLEAR**". Press the button of the mouse and whilst holding the pressure, move the arrow inside "**CLEAR**".

The text is :

Is it correct ?

NO

YES

QUIT

CLEAR

COMMENT

Q	W	E	R	T	Y	U	I	O	P
A	S	D	F	G	H	J	K	L	;
Z	X	C	V	B	N	M	.	/	
1	2	3	4	5	6	7	8	9	

PATTERN -----



PATTERN WRITING (continued)

- ❑ "QUIT" by means of the mouse.
- ❑ If the comment is correct, select **YES** by means of the arrow of the mouse.
- ❑ Tap on the keyboard the number you have given to your pattern, then press key "E" to enter your choice.
- ❑ A few seconds are necessary to record the pattern.

Ø = abandon

You can cancel your choice "PATTERN WRITING" by entering figure 0 and pressing key "E".

CAUTION : If you give to your pattern a number already used, the new pattern will automatically erase the pattern already recorded on the disk.

Check in "CATALOGUE" what is already recorded on the disk (refer to the instructions "CATALOGUE" on page 45).

IMPORTANT : It is not possible to write a pattern on the disks holding the patterns from the pattern book.

The text is :
PATTERN
Is it correct ?

NO

YES

PATTERN WRITING
Enter its number
(Ø = abandon)

45_

WORKING . .

TV

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PATTERN ERASE

It is possible to take out a self-created pattern from a disk.

After having selected "**PATTERN ERASE**" :

- Insert the disk holding the pattern.
- Tap on the keyboard the number of the pattern to be taken out from the disk.
- Press key "**E**" to enter your choice.

If the pattern to be erased is not on the disk inserted in the controller, the information **DISK ERROR** followed by **Not found** will show on the monitor.

- Press a key to find again the programme.
- The erased pattern remains visible on the monitor as long as function "**ERASE DRAWING**" has not been applied. On the opposite, its number does not appear anymore in "**CATALOGUE**".

Ø = abandon

You can cancel your choice "**PATTERN ERASE**" by entering figure 0 and pressing key "**E**".

NOTE : the patterns from the pattern catalogue can not be erased.

PATTERN ERASE

PATTERN ERASE
Enter its number
(Ø = abandon)

62_

WORKING . .

CATALOGUE

This function allows you to discover the content of a floppy disk.

- 1) The numbers given to the patterns.
 - 2) Their comments.
- Discover all pages of the catalogue by placing the arrow of the mouse on "**NEXT**" and press the button.
 - The last page of the catalogue indicates the number of patterns which can be memorized.
CAUTION : Very big patterns can use several places.

When the disk is full, the monitor shows the message "**DISK FULL**".

CATALOGUE

QUIT

NEXT

CATALOGUE

PATT 45	FRONT SWEAT FLOWERS PAL7
PATT 100	CARDIGAN BLACK AND RED.
PATT 102	ANCHOR PAL 10

470 patterns free

TV

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PALETTE READING

Ten palettes of different colours are filed on the "TV Programme" disk.

This allows you to modify easily the colour effect of your patterns.

After having selected "PALETTE READING" :

- You can answer **NO** to call a palette direct.
 - Tap on the keyboard the number of the selected palette.
 - Press key "E" to enter your choice.
-
- The selected palette shows at the right-hand side of the monitor and replaces the original palette.
 - The number of the palette is shown. Example : P : 6
 - The colours of the pattern shown on the monitor are automatically modified

PALETTE READING

VISUAL CHOICE THE
OF PALETTES

NO

YES

PALETTE READING
Enter its number
(Ø = abandon)

6

WORKING . .

PALETTE READING (continued)

- You have answered **YES** to a visual choice of a palette : automatically palette N°1 is visible on the right-hand side of the monitor.
- The colours of the pattern shown on the monitor are modified.
- You have answered **YES** to a visual choice of a palette : automatically palette N°1 is visible on the right-hand side of the monitor.
- The colours of the pattern shown on the monitor are modified.
- To visualize the next palettes, place the arrow of the mouse on "**NEXT**", then press the button of the mouse. Palette N° 2 shows and the colours of the pattern change. You can visualize, one after the other, the palettes already available. The next grey-coloured palettes are reserved for your own creations (refer to "**ADJUST COLOUR**" page 48 and "**PALETTE WRITING**" page 49).
- The number of the visualized palette is indicated just above the palette.
- To come back to the preceding palettes, use function "**RETURN**" in the same way as you have used function "**NEXT**".
- When you have made up your choice, place the arrow of the mouse on "**SELECT**" and press the button of the mouse. In this way, the new palette moves into place. The main menu appears automatically. The number of the selected palette is confirmed. Example : P : 3
- Place the arrow of the mouse on "**QUIT**", then press the button of the mouse.

CAUTION :

- The palette you have obtained when choosing "**CREATION**" is marked by **P : ***. This palette is identical to palette N°1.
- When selecting the visual choice of the palettes, you can return very easily to the original palette by quitting the programme.
- 99 different palettes can be read.
- If you enter by mistake a number superior to 99 : the access is forbidden and mentioned on the monitor. In this case, place the arrow of the mouse on **OK**, then press the button of the mouse.

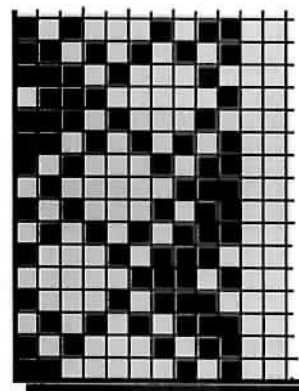
QUIT

NEXT

RETURN

SELECT

ZOOM



P : *

P : 3

QUIT

NEXT

RETURN

SELECT

TV

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ADJUST COLOUR

This function allows you to modify the colours of a palette, or to create one's own palette.

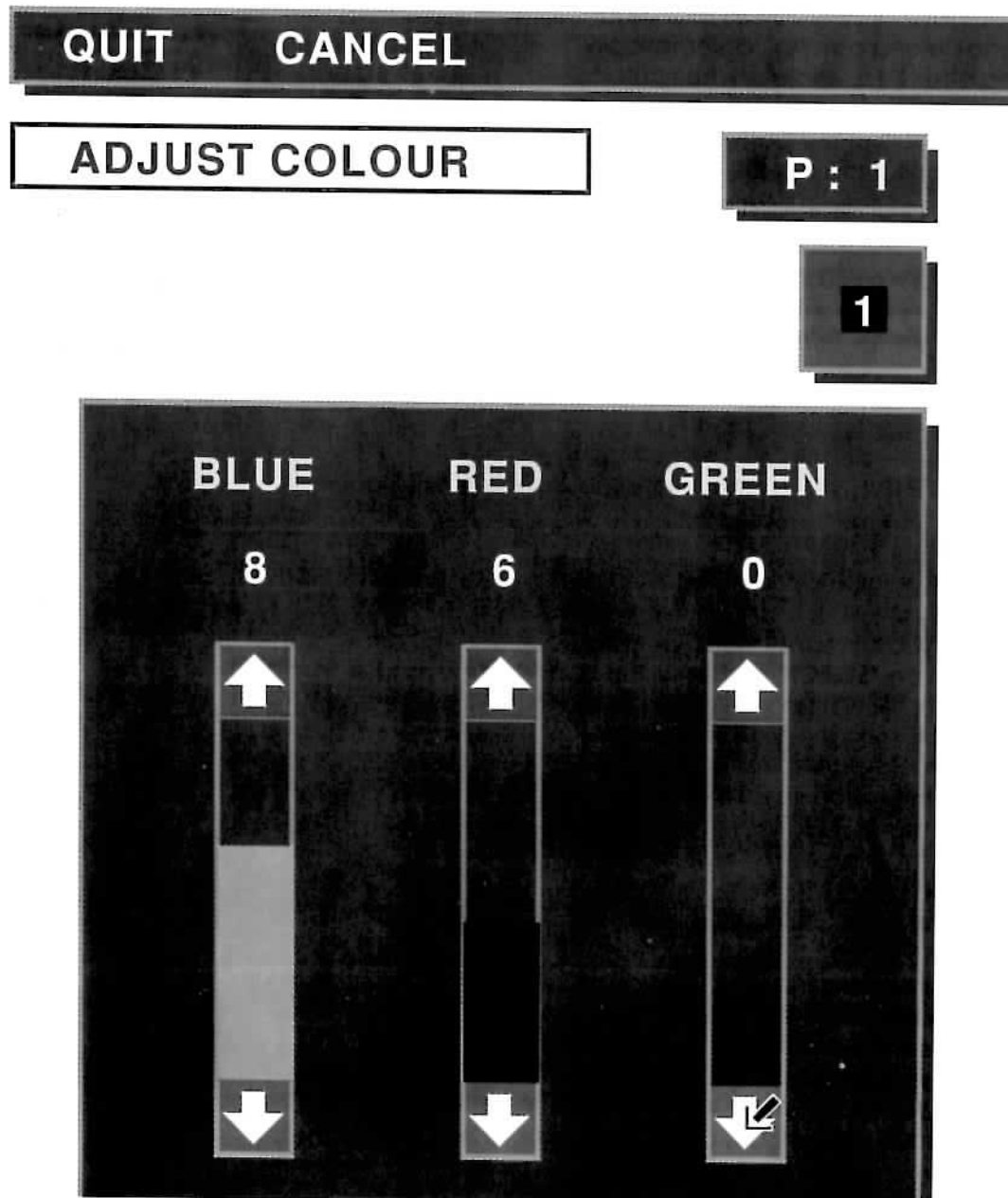
Before selecting "ADJUST COLOUR", it is important that the palette to be modified or to be created is already shown on the monitor. Use function "PALETTE READING" to select a blank palette (grey). Refer to the instructions on page 46.

- After having selected "ADJUST COLOUR", three "inkpots" show : the Blue, the Red and the Green.
- To modify colour 1, place the arrow of the mouse onto one of the arrows of an inkpot and press the button of the mouse. Colour 1, like the colour on the monitor are changing.

The inkpots

- If you use the arrow located above each inkpot, the latter fills up. With the bottom arrow, the inkpot empties.
 - A value between 0 and 15 per inkpot allows you to get reference marks.
 - If you wish to find quickly the initial values, place the arrow of the mouse on "CANCEL" and press the button of the mouse.
-
- To modify colour 2, place the arrow of the mouse on "QUIT" and press the button of the mouse.
 - Place colour 2 in the square located above the palette and "ADJUST COLOUR".
 - Modify colour 2 and quit. You can modify one or all colours of the selected palette.

CAUTION : With the knitting types FANCY PATTERN and LACE PATTERN, it is impossible to adjust the black colours.



PALETTE WRITING

This function allows you to memorize a self-created palette on the "TV Programme" disk.

99 places are available.

- ❑ It is the palette shown on the monitor which is written (memorized).
- ❑ After having selected " **PALETTE WRITING**", the programme memorizes automatically on the disk your new palette.

PALETTE WRITING

P : 1

1

WORKING . .

TV

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CHANGE COLOUR

This function allows you to replace part of the colour of a pattern by one or several colours.

This function can be used on a basic pattern or on patterns after the ALL-OVER Pattern function.

- The colour to be modified must be placed into the square located just above the palette.
- After having selected "CHANGE COLOUR", place by means of the pointer and the arrows of the palette, the new colour into the square located just above the palette.
- Place the pointer onto your pattern and press the button of the mouse.
- The new colour gets into place on the required part. You can choose a new colour and modify the first colour on another section. In this way, you can use all colours of the palette.
- Proceed in the same way to modify a new colour.

CAUTION : Never place more than 4 colours on a same line.

Use of the pointer : refer to page 29

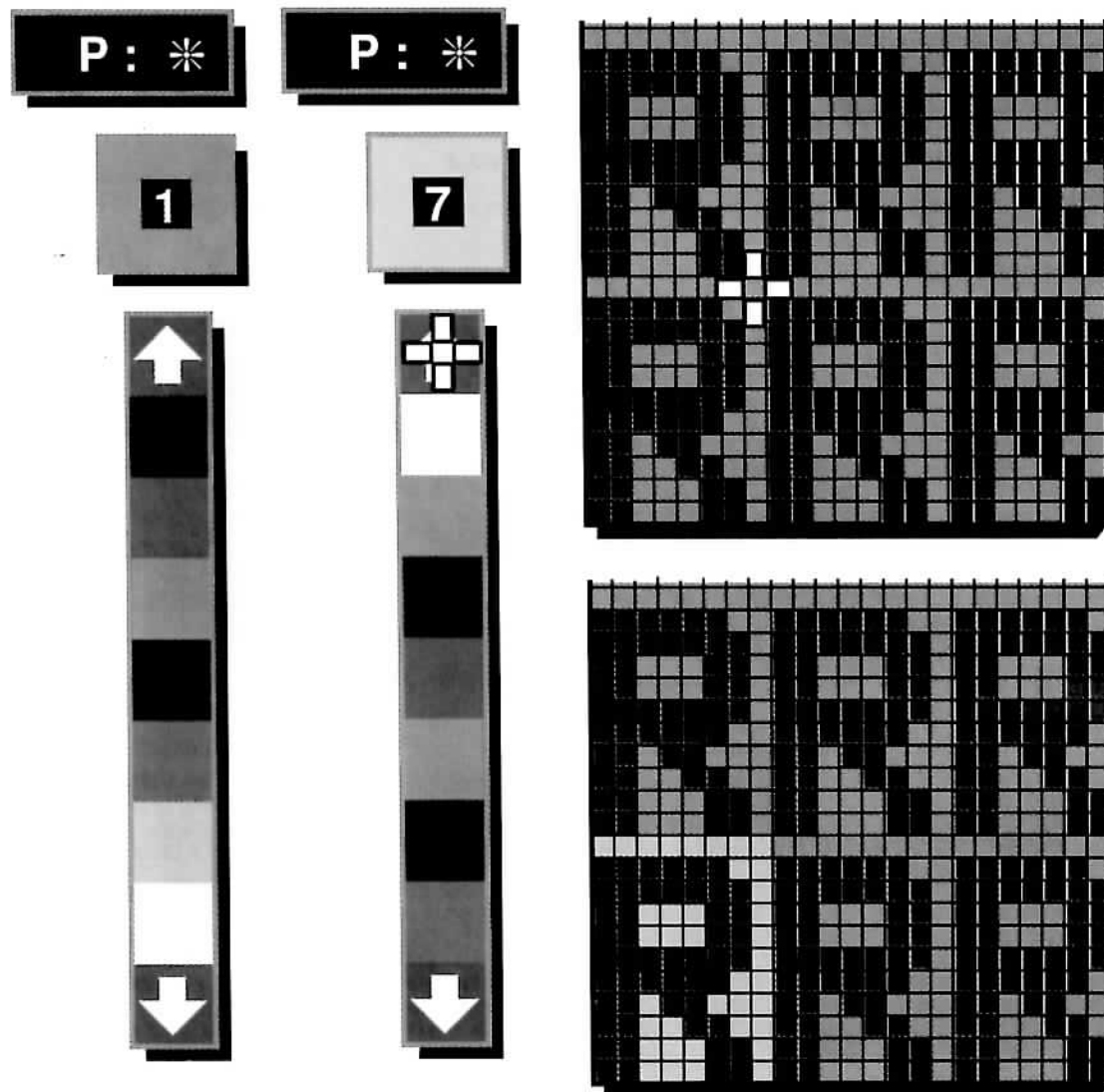
Specific cases :

The patterns "protected" by "PLACE ORIGIN" can not be modified by "CHANGE COLOUR".

CAUTION : With the knitting types FANCY PATTERN and LACE PATTERN, the black colours are not accessible.

The function "ZOOM" and the shift symbols are accessible.

CHANGE COLOUR



You have now discovered all possibilities offered in the programme
CREATION.

You can use them just for fun, and you'll be sometimes surprised when getting unexpected effects.

Conversely, if you wish to create something very accurate, you must use the different functions available. There could be different ways to obtain the same result.

The heading "**SHAPE**" belonging to the section "CREATION" is explained in the paragraph "PREPARATION BEFORE KNITTING".

You have selected "SHAPES"

The shapes encyclopedia

To look for a specific shape, it is necessary to use the contents in that book.

- Sweaters, waistcoats, jackets and blousons are gathered per style of armhole.
- For the same style of armhole, you can choose from several lengths of sleeves.
- The section of the pages concerned with each possibility are indicated next to the description.
- Refer to the first indicated page.

Example : Square armhole, waistcoats, long sleeves, page 431.

The sketch confirms your selection and mentions : long slanted sleeve. On page 433, it is mentioned : long straight sleeve. Each sleeve is proposed in two versions i.e. slanted and straight, one after the other. In some cases, other styles of sleeves are proposed like balloon sleeve, gathered sleeve, etc.

- For the same garment with the same style of sleeve, several styles of necklines and collars are proposed.
- The garments shown on the pictures give an idea of what the finished garment will look like.
- Skirts, babywear and accessories are independant and each style of garment is mentioned in the relevant heading in the contents.

Emmanchure ronde

Pulls
manches longues 4 - 25
manches 3/4 21 - 41
manches courtes 48 - 60
sans manches 71 - 81

Gilets
manches longues 71 - 81
manches 3/4 81 - 92
manches courtes 92 - 112
sans manches 111 - 112

Vestes
manches longues 104 - 111
manches 3/4 112 - 119

Blousons
manches longues 121 - 132

Emmanchure droite

Pulls
manches longues 132
manches 3/4 148
manches courtes 157
sans manches 174

Gilets
manches longues 155
manches 3/4 163
manches courtes 167
sans manches 161

Vestes
manches longues 164
manches 3/4 168

Blousons
manches longues 201

Emmanchure raglan

Pulls
manches longues 211 - 213
manches 3/4 211 - 216
manches courtes 219 - 226
sans manches 227 - 230

Gilets
manches longues 241 - 243
manches 3/4 241 - 247
manches courtes 248 - 251

Vestes
manches longues 251 - 256
manches 3/4 257 - 262

Blousons
manches longues 267 - 267

Emmanchure marteau

Pulls emmanchure marteau ronde
manches longues 271 - 279
manches 3/4 281 - 287
manches courtes 288 - 296

Gilets emmanchure marteau ronde
manches longues 297 - 313
manches 3/4 311 - 316
manches courtes 317 - 318

Pulls emmanchure marteau canée
manches longues 319 - 317
manches 3/4 318 - 325
manches courtes 326 - 333

Gilets emmanchure marteau canée
manches longues 334 - 338
manches 3/4 339 - 340

Square armhole

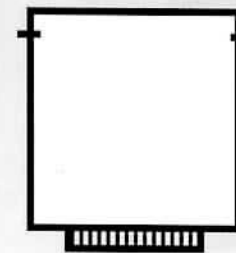
Sleeveless	424	-	429
Waiscoats			
long sleeve	431	-	434
3/4 sleeve	435	-	438

Manches longues droites

Long straight sleeve

Gerader Langarm

Manga larga recta



Code numbers

A shape is composed of several sections which are knitted separately. Each section has a code number (or call up number).

The code numbers are placed in the same sequence as the name of each section.

☐ Refer to the illustration on page 431 as an example.

Note :

☐ Two arrows show the knitting direction :

a) ↑ The classical direction : from bottom to top.

b) → The garment is knitted sideways.

CAUTION : You must choose one or the other option for knitting as there is no guarantee that the sections knitted in one direction will match correctly with the sections knitted in the other direction.

N.B. For some specific garments, we give you the possibility to knit the garment in both directions.

Example on page 464 : The sleeve is proposed in direction a) and b). The codes are placed in the classical knitting direction. Select one or the other version.

IMPORTANT : The disk holding the parts which are knitted sideways, except the parts like collars, trims and button bands, is optional and has to be purchased separately.

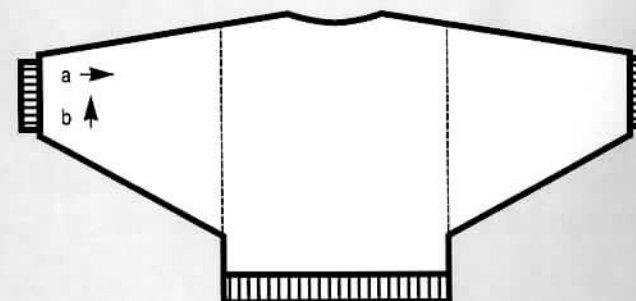
Dos encolure creusée - Devant encolure en pointe - Manches - Bande de boutonnage - Bordures : bas du dos - bas du devant - bas de manches			↑	1
	459			2
	539			3
	483			4
	89			5
	-			6
				7
				8
				9
				10
Back with shallow neckline - Front with V-neckline - Sleeves - Button tab - Trims : bottom of back - bottom of front - bottom of sleeves			→	11
	460			12
	540			13
	484			14
	88			15
	174			16
	176			17
	50			18
				19
				20
Rücken, halsferner Ausschnitt - Vorderteil, V-Ausschnitt - Ärmel - Knopfleiste - Unterer Bund : Rücken - vorn - Ärmel			↑	
	460	460		
	540	540		
	484	484		
	88	88		
	174	174		
	176	176		
	50	50		
Escote espalda cavado - Escote delantero en V - Manga - Presilla abotonada - Doblado inferior : espalda - delantero - manga	Back with shallow neckline :	459		460
	Front with V-neckline :	539		540
	Sleeves :	483		484
	Button tab (band) :	89		88
	Trim for bottom of back :	-		174
	Trim for bottom of front :	-		176
	Trim for bottom of sleeves :	-		50

Manches longues

Long sleeve

Langarm

Manga larga



TV
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How to call up a section

Introduction

After having "loaded" the "TV PROGRAMME" disk :

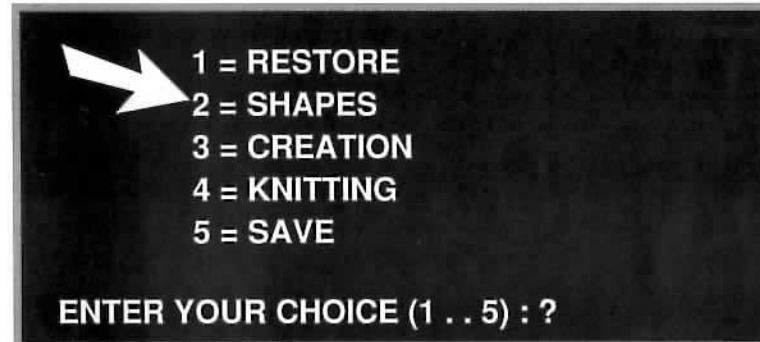
□ Press key "2 = SHAPES"

□ Insert your SHAPE disk.

N.B. You can leave (abandon) the programme "SHAPES" by entering the figure zero, then "E".

□ Insert your "TV PROGRAMME" disk again and press key "E".

NOTE : With the programme "SHAPES", all indications are shown on the monitor. Read carefully the questions so as to give a correct answer.



A screenshot of a menu with a white arrow pointing to the first option. The menu lists five options: 1 = RESTORE, 2 = SHAPES, 3 = CREATION, 4 = KNITTING, and 5 = SAVE. Below the list, it asks the user to "ENTER YOUR CHOICE (1 . . 5) : ?".



A screenshot showing the text "WORKING . ." in a white box on a black background.

Looking for the section

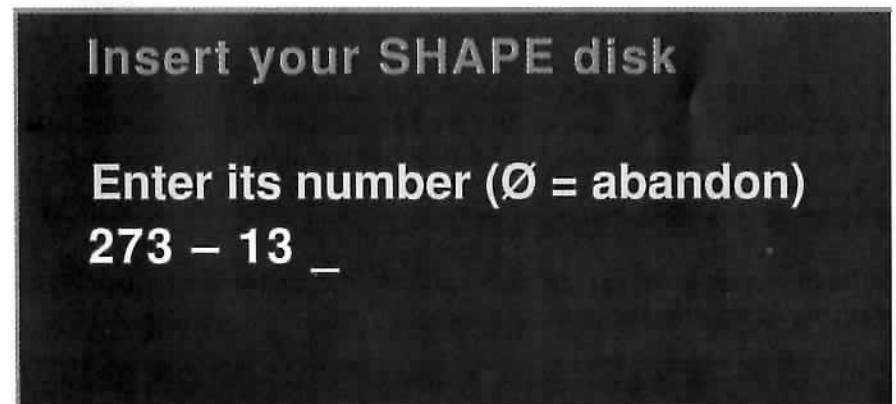
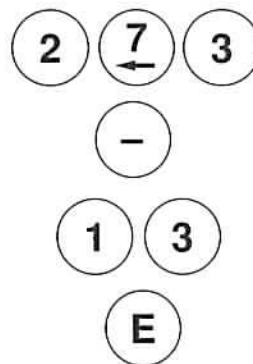
□ Tap on the keyboard the number of the section. Example : 273

□ Press key hyphen "-"

□ Tap the number of the size. Example : 13

□ When introducing the number of the section, or the number of the size, you can modify your choice by using the correction key "C".

□ Enter your choice by pressing key "E".



A screenshot of a screen with a black background and white text. It says "Insert your SHAPE disk" and "Enter its number (Ø = abandon)". Below that, it shows the input "273 - 13 _".

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How to prepare the section to be knitted

Hints

- According to the section you have called up, one or several informations can be shown on the monitor.
- The information is often a hint, but it could also concern a specific case explained in the manual.
- Refer to the specific cases on page 60.

Example : 273-13 : it is the front of a waistcoat

The section is knitted once without reversing it and once with reversion

Reverse shape (Y/N) ?

"Y" = yes

"N" = no

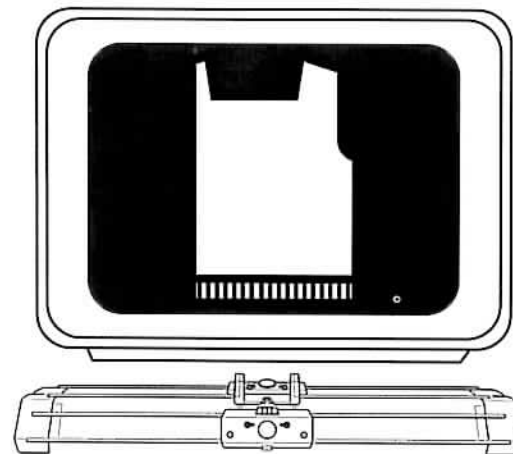
- It is not necessary to reverse symmetric sections like the front or the back of a sweater. Therefore, you must answer the question with NO by pressing the key "N" on the keyboard.
- The reversion has to be done for non-symmetric sections like the second side of a waistcoat. Therefore, you must answer the question with YES by pressing the key "Y" on the keyboard.

N.B. : The knitted sections correspond to the pictures in the shapes encyclopedia. On the monitor, the sections appear on the wrong side, as they do when you are seated in front of the machine and knit, as you always see the purl side of the knitting.

Example : Non-symmetric waistcoat, page 78.

CAUTION : When knitting a pattern used on the purl side of the knitting, it is necessary to reverse the shape.

Reverse shape (Y/N) ?



Start with carriage on left-hand side (Y/N) ?

"Y" = yes

"N" = no

- According to the selected pattern, it is necessary to start knitting with the carriage at the left-hand side of the machine. The information is then given for the relevant fancy patterns.
- For the other patterns, you must start knitting with the carriage at the right-hand side.

Only press once key "Y" or "N" to allow the information to be taken into account. The move to the next question is automatic.

Start with carriage on left-hand side (Y/N) ?

How to enter the measurements of the best samples

Refer to page 69 regarding preparation, knitting and how to measure a test sample.

- Tap on the keyboard the measurement in millimetres.
- Use key "C" if this number is not correct.
- Enter your answer by pressing key "E".

Tap in the same way the other numbers of the test samples according to the questions.

Width in mm of the selected pattern for the section :
Height in mm of the selected pattern for the rib or any other type of welt :
Height in mm of the selected pattern for the section :

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How to change the measurements

You have the possibility to change the measurements of certain sections so as to adjust the garment.

CAUTION : Do not ask too great an increase or decrease of the measurements. It is rather advisable to select either the size before or the next one.

If you change a width or a height of a section, remember to correct the sections which could be sewn on.

CAUTION : Some measurements cannot be decreased. Read carefully the questions which are shown.

- The measurements of bust, hips, etc. correspond to the measurements taken on yourself.
- The controller takes into account the required ease according to the selected size and works out automatically the section to be knitted.

CAUTION :

- The same measurements must be indicated for a back or a front.
- If you change a bust measurement, you must, in some cases, alter the sleeve.

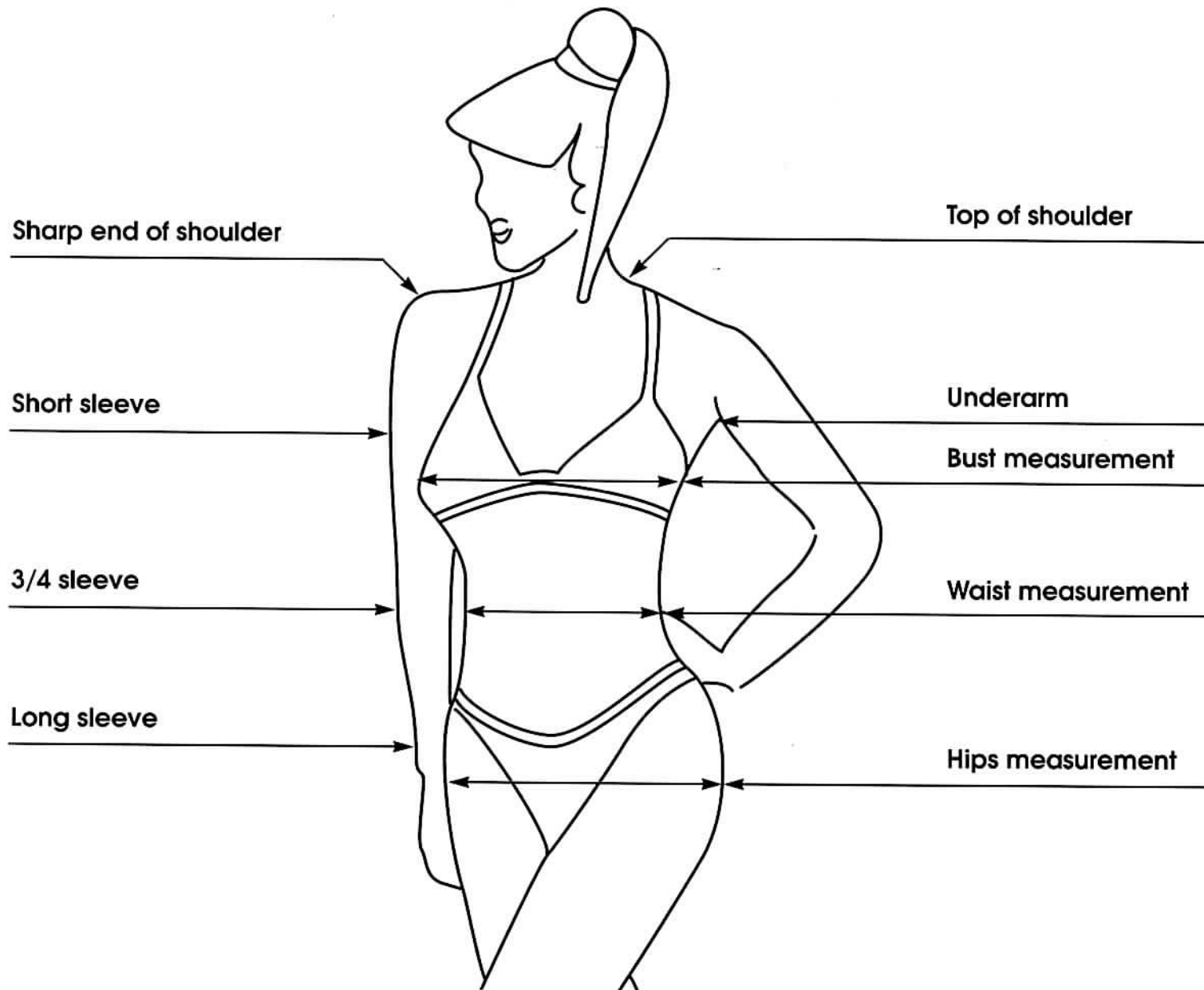
Read carefully the questions which are shown.

- The total height corresponds to the measurement taken on yourself according to the indications shown on the monitor. You have not to take into account a welt which can be knitted separately.

Bust measurement : 98 cm (same measure or more), your measurement in cm :

Total height taken from the top of the shoulder : 61 cm (same measure/more/less), your measurement in cm :

Help when taking the measurements



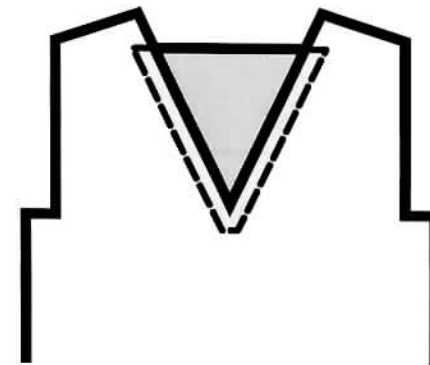
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Specific cases and hints

The front pieces

- ❑ The front pieces are bigger of 1 cm than the neckline so that they can be sewn inside the garment.
- ❑ The front pieces with a straight top edge can be increased or decreased in height to allow to alter the neck opening. These types of front pieces can be used with the finishing band "43" or "44". If the height has been changed, you must adapt the width taking into account that 1 cm will be used for the seam.
- ❑ There are two types of front pieces with a round top edge :
 - The first code number corresponds to a deep neck to allow to add, if required, a collar : neckband, turtle neck, rolled collar.
 - The second code number corresponds to a round neckline to allow to add a collar : officer collar, lace collar, flat collar.



Finishing bands - Button bands

Code number "43" or "44" — "89 or 88"

- ❑ The shapes have been prepared to receive finishing bands of a very accurate width.
 - from size 1 to 10 : 2 cm wide
 - from size 11 to 20 : 3 cm wide

N.B. You can change this width if you wish to obtain specific effects (example : double depth of a finishing band, hem, etc...).

- ❑ The length of the bands must be taken on the garment.

CAUTION : According to the size and the measurement of your test sample, it can be necessary to knit the band in two or several pieces. When the measurement you have entered, shows a result exceeding 180 stitches, the message ERROR 3 will show on the monitor.

If you wish to sew on the finishing band, stitch by stitch (backwards stitch), when the message "End of knitting" is shown, knit one row in stocking stitch or in circular with the main yarn and some rows with auxiliary yarn.

NOTE : The welts of bottom of back or front piece and the welts of bottom of sleeves are not considered as finishing bands, therefore they cannot be modified in width nor in height.

Large collars

Shawl collar :

- For one knitting direction, two code numbers are proposed :
 - the first number : collar to be knitted in one piece.
 - the second number : half-collar to be knitted in two pieces.
- For the other knitting direction, only one code number is proposed.

For the first code number, according to the size and the measurement of your test sample, the result given by the controller can exceed the capacity of the machine (180 needles) and the message ERROR 3 will show on the monitor. You must then use the second code number which allows to knit the collar in two pieces.

CAUTION : For waistcoats or jackets, the collar can be sewn right after the button band (or follow the button band). If you have increased the width of the band, you must indicate the same measurement for the shawl collar (example : 4 cm instead of the proposed 3 cm).

Big collar:

- For one knitting direction, the big collar is knitted in two pieces.
- For the other knitting direction, the big collar is knitted in one piece.

Turtle neck, flat collar

- According to the size and the measurement of your test sample, the result given by the controller can exceed the capacity of the machine (180 needles) and the message ERROR 3 will show on the monitor. You must then knit the collar in two or several pieces.

Dos encolure creusée - Devant encolure pointe - Manches - Bande de boutonnage - Col châle en 1 ou 2 pièces - Bordures : bas du dos - bas du devant - bas de manches	↑	1	
		59	5
		19	6
		89	7
Back with shallow neckline - Front with V-neckline - Sleeve - Button tab - Shawl collar in 1 or 2 pieces - Trims : bottom of back - bottom of front - bottom of sleeves			8
			9
			10
			11
			12
Rücken, halsferner Ausschnitt - Vorderteil, V-Ausschnitt - Ärmel - Knopfleiste - Ein- oder zweiteilige Schalkragen - Unterer Bund : Rücken - vorn - Ärmel	→	2	13
		112	14
		20	15
		88	16
Escote esplada cavado - Escote delantero en V - Manga - Presilla abotonada - Cuello esmoquin de una o dos piezas - Doblado inferior : espalda - delantero - manga			17
		174	18
		176	19
		50	20

Collar in one piece	103
Half collar to be knitted twice	105

Collar in one collar	96
----------------------	----

Dos encolure creusée - Devant encolure profonde - Manches - Bordure bas du dos/devant - Bordure bas de manches - Col baveur dos/devant	↑	501	
		515	5
		531	6
		-	7
		50	8
Back with shallow neckline - Front od deep neckline - Sleeve - Bottom trim of front/back - Bottom trim of sleeves - Back/front of big collar			9
			10
			11
			12
Rücken, halsferner Ausschnitt - Vorderteil, tiefer Ausschnitt - Ärmel - Unterer Bund Rücken/Vorderteil - Unterer Ärmelbund - Latzkragen Rücken/vorn	→	502	13
		516	14
		532	15
		174	16
		50	
Escote esplada cavado - Escote delantero profundo - Manga - Doblado inferior de espalda/delantero - Doblado inferior manga - Cuello babero espalda/delantero			

Back of big collar	117
Front of big collar	119

Collar in one piece	108
---------------------	-----

Example :

For a collar length of 80 cm, ERROR 3 will show on the monitor. Look for the same shape, but enter the collar length of 40 cm and knit the section twice.

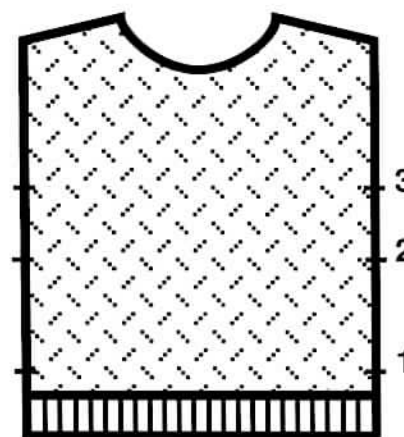
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Back and front with straight armhole and bat sleeve

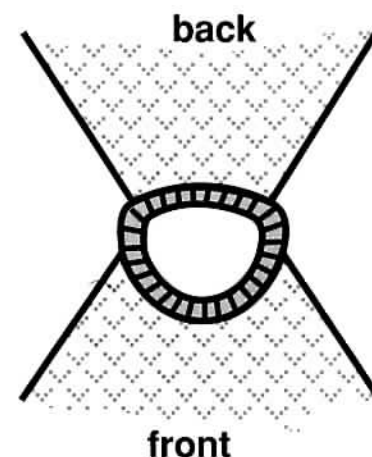
- It is the same back and the same front which are used for garments with straight armholes and garments with bat sleeve (knitting is done vertically).
- Three marks for the place of the armholes will show as you knit. They correspond to the armhole for three different styles of garments.
First mark : Beginning of the armhole for a large bat sleeve.
Second mark : Beginning of the armhole for a bat sleeve.
Third mark : Beginning of the straight armhole.

CAUTION : When decreasing a height, it can happen that the first mark does not appear anymore.



Sleeveless raglan

- When sewing up the neckline of the garment, do not sew the shoulder top of the front together with the back, as you could risk reducing the neck opening. It is a part of the collar and the armhole band which come in between the two sides.



Skirts and dresses for children

- ❑ The programme does not include the finishing of the bottom of the garment. You can therefore, finish it with a crochet edge, a hem, etc.

CAUTION : The height of the finishing has to be added to the total height of the garment.

Example :

Total selected height : x cm

Height of a hem : 4 cm

Total height of the finished garment : x cm + 4 cm

Splits in the back of sweaters and dresses for children

- ❑ The vertical split which is foreseen in the back, is only valid for sizes 1 to 4 of the sweaters, and for sizes 1 to 6 of the dresses.
- ❑ The split has to be done when the front of the sweater has a round neckline, a square neckline or has a front piece.
- ❑ For the sweaters or dresses with a V neckline, or if the back is used for a waistcoat, do not take into consideration the information "Number of needles in holding position", but continue to knit.

CAUTION : In this case, the shoulder shapings are given for one side only. You must make the same decreases on the other side of the knitting, even though the information is not shown on the monitor.

Trims for blousons

- ❑ For the code numbers "220 - 222 - 224" found at the bottom of the list, you must always knit the section, whichever the knitting direction chosen for the blouson may be.

Error messages (TV - LCD)

After having entered all values regarding the section to be knitted, the word "ERROR" can be shown at the bottom of the monitor. In this case, the section is not recorded.

The reason for the error depends on the number shown next to "ERROR".

"ERROR 1" and "ERROR 5" :

- The values which have been entered are not compatible with the programme.
- Try again and check the values accurately. Return your disk to your supplier if you do not succeed.

"ERROR 2" :

- After the garment has been worked out, the number of stitches to be cast-on is equal to zero.
- Check the values you have entered.

"ERROR 3" :

- After the garment has been worked out, the number of stitches is superior to 180.
- Check and try again that the values have been entered correctly.
- After the garment has been worked out, the number of stitches to be cast-on is superior to 180. The controller refuses to go beyond the capability of the machine, i.e. 180 needles.

"ERROR 4" :

- You have decreased a width. Example : a bust measurement.
 - The message written on the monitor did not allow you to do so. You must respect the messages which are shown.
- CAUTION :** The controller will not show necessarily "ERROR 4". If you modify a measurement which you were not supposed to, your garment will be necessarily subject to undesirable modifications.

A too big decrease of a height can be refused by the controller. In this case, "ERROR 4" will show on the monitor.

Respect the instructions.

"ERROR 6" :

- The usual values do not allow the controller to work out the garment.

"ERROR 1, 5 and 6" are very rare cases which you should not encounter normally. Contact your supplier to have your disk checked.

Preparation before knitting

- ❑ The section entered in the controller is shown :
 - 1) in the heading **"SHAPES"** of the programme **"CREATION"**. Refer to the instructions page 66.
 - 2) in the heading **"4 = KNITTING"**. Refer to the instructions page 75.

CAUTION :

- ❑ When entering a new section, the previous section is automatically cancelled.
- ❑ When switching off the controller, the section which was called up is lost. To keep the section in the memory, refer to the instructions given in the heading **"SAVE"** page 85.

Using the instructions in the heading **"SHAPES"** of the programme **"3 = CREATION"**, you can easily :

- 1) Set the patterns in a shape
- 2) Set the patterns without a shape
- 3) Prepare the test sample

Access to the possibilities

- ❑ You have access to the various possibilities proposed in the heading **"SHAPES"** by placing the arrow of the mouse onto **"SHAPES"**.
- ❑ Keep the pressure on the button of the mouse, and move the arrow down on the required subject.
- ❑ Release the pressure on the button of the mouse to get automatically the required selection.

PATTERN FUNCTION ZOOM SHAPE QUIT



**INFO SHAPE
SET PATTERN
CENTRE PATTERN
BACKGROUND COLOUR
SEE SHAPE
SEE PATTERN

TEST SAMPLE
ERASE SHAPE**

With a shape

INFO SHAPE

- ❑ "INFO SHAPE" allows you to obtain some information about the section :
 - the number of stitches to cast-on, the changing of a pattern, dividing for a neckline, etc.
- ❑ This information is useful to set the patterns onto a section.
- ❑ The messages show one after the other when placing the arrow of the mouse onto "NEXT".

SET PATTERN

- ❑ "SET PATTERN" gives straight access to the section in order to set the pattern on the garment by means of the pointer.
- ❑ The function "ZOOM" and the shift symbols are accessible.

To set the pattern onto a section :

- ❑ Place the horizontal branch of the pointer on the first pattern row to be knitted.
- ❑ Place the vertical branch of the pointer on the left-hand edge of the section.
- ❑ Press the button of the mouse.

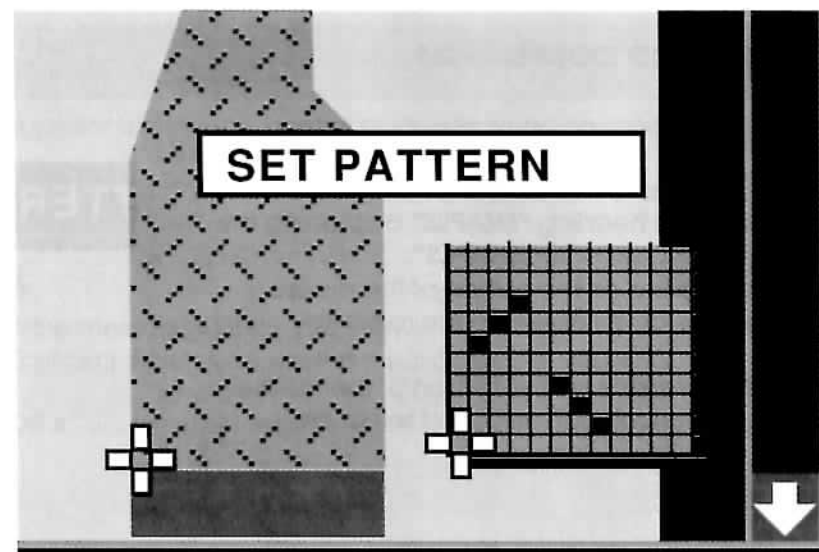
The horizontal branch of the pointer corresponds to the first line of the pattern grid.

The vertical branch of the pointer corresponds to the first column of the pattern grid.

CAUTION : The first line of the pattern grid can be modified by means of the function "PLACE ORIGIN". In this case, it is the line which corresponds to the origin which is set onto the section.

- ❑ Use the indicators **S** (stitches) and **R** (rows) to control better the position of the pointer.
Specific case : You can keep the pressure on the button of the mouse whilst moving it, thus allowing to get specific effects on the section. These effects can hardly be mastered as they depend upon the speed at which the mouse is moved.

**For the row : 0
Cast-on 56 stitches in rib or for any other type of welt**



VERY IMPORTANT :

The parts which have been worked out, can be knitted even if there is a large number of rows. The patterns do not exceed the value of 512 rows. For very big parts, only use the automatic needle selection for the lower section of the garment, i.e. up to 512 rows.

CENTRE PATTERN

- ❑ "CENTRE PATTERN" gives straight access to the section in order to move the pattern(s) sideways and to centre them onto the section.
- ❑ The function "ZOOM" and the shift symbols are accessible.

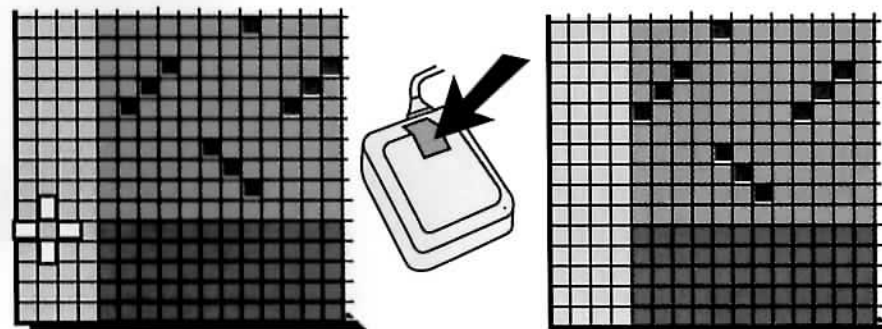
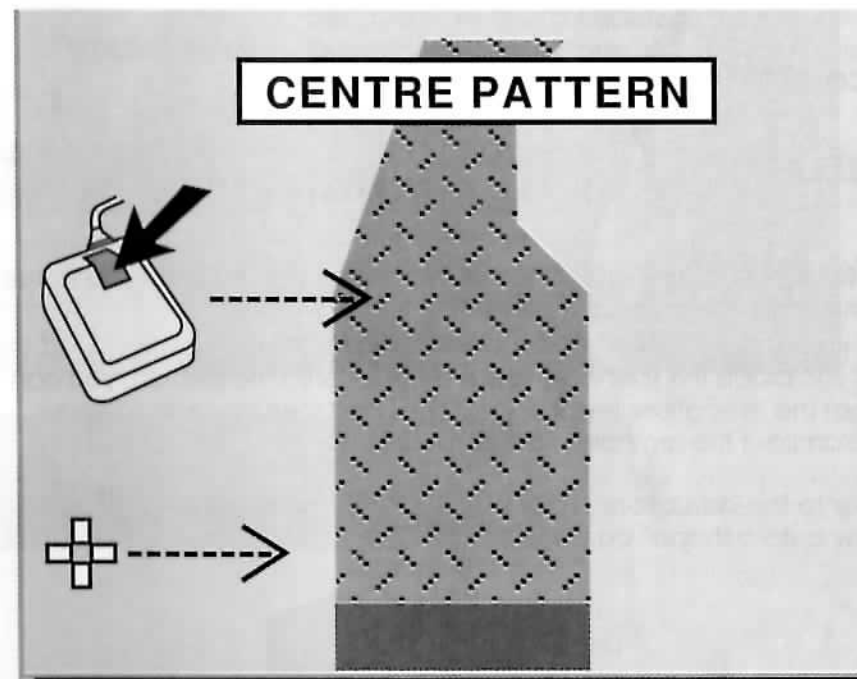
To centre the pattern onto a part :

- ❑ Place the pointer onto the left-hand side of the pattern grid, then press the button of the mouse and keep the pressure.
- ❑ Move the mouse very slowly towards the right-hand side. The pattern moves towards the right.
- ❑ Release the button of the mouse as soon as your pattern is at the chosen place, on the section.

HINT : You will notice that each time you click the mouse, the pattern shifts one column towards the left-hand side. It will allow you a better adjustment of the pattern setting.

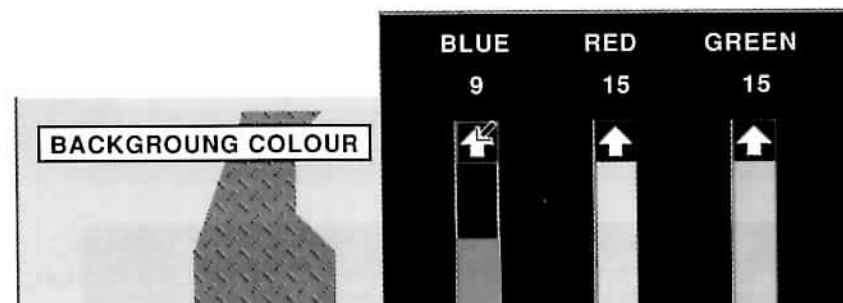
CAUTION : You may have to modify the width of the basic pattern if you wish :

- To obtain a perfect centering of the pattern. Example : the pattern must have an uneven number of squares in width.
- To obtain patterns perfectly finished on each side. Example : the number of stitches (squares) of the section must be divisible by the width of the basic pattern.



BACKGROUND COLOUR

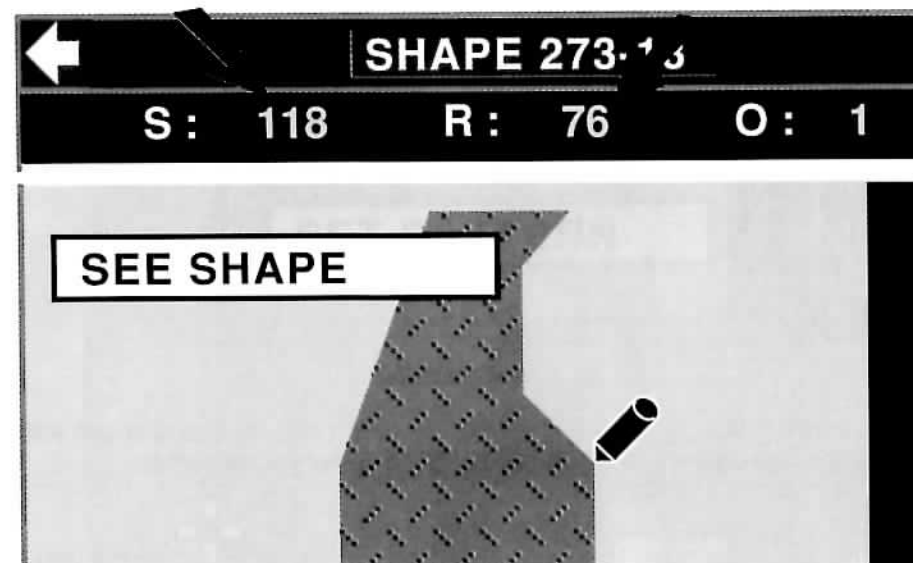
- ❑ **"BACKGROUND COLOUR"** allows you to obtain automatically three inkpots in order to modify the yellow colour placed behind the section.
- ❑ With the background colour, you can get a more important contrast between the background of the monitor and the patterns placed onto the section.
- ❑ **"BACKGROUND COLOUR"** is only accessible if the section is shown on the monitor, or if you have selected **"TEST SAMPLE "**.
- ❑ To use the inkpots, refer to the instructions on page 48 **"ADJUST COLOUR"**.



SEE SHAPE

- ❑ **"SEE SHAPE"** gives straight access to the section. It allows you to see the section you are going to knit.
- ❑ The function **"ZOOM"** and the shift symbols are accessible.
- ❑ If you place the tool looking like a pencil onto the section, you can get the indications regarding stitches and rows you wish to know. Example : the armhole starts at row X.

Refer to the instructions "How to knit Intarsia" on page 82 or "How to draw onto a shape" on page 83.



SEE PATTERN

- ❑ **"SEE PATTERN"** gives straight access to the patterns already prepared.

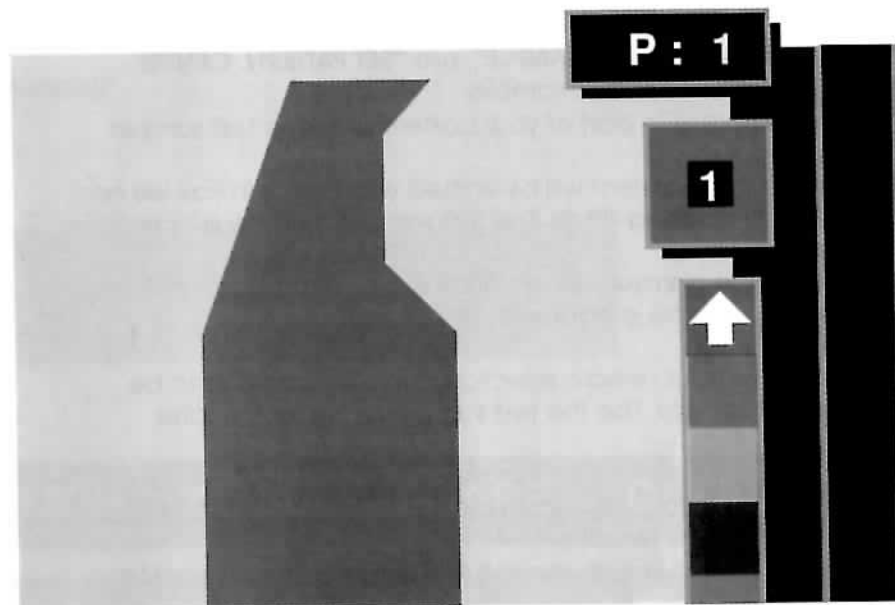
Hints and specific cases

The colours :

- The section always shows in colour 1 before the setting of the patterns.
- If colour 1 is yellow, the section will not show on the monitor as its colour will be mixed with the background colour. In this case, change the background colour.
- All functions of "PATTERN", from the main menu, are accessible. You can therefore, modify the colours directly on the section by using the functions "READ PALETTE, ADJUST COLOUR".

Sections without fancy patterns with needle selection (basic patterns)

- You can modify the colour of the section, to reach the colour of your knitting yarn.
- If the section has to be knitted with patterns without automatic needle selection (stocking stitch, rib, racking patterns, cable patterns, etc.), use the section as it is shown on the monitor.

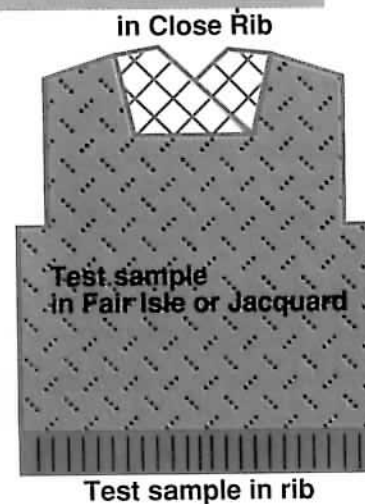


Test sample

CAUTION : When selecting "TEST SAMPLE", the section perhaps selected, is automatically cancelled.

The measurements of the section to be knitted will be accurate if the test sample has been prepared very carefully.

- You must knit a test sample for each type of pattern you will be using.
Example : Front of a sweater
 - The welt of the garment is in rib : knit a test sample in rib.
 - The section is in Fair Isle or Jacquard : knit a test sample in Fair Isle or Jacquard.
 - The collar is in Close Rib : knit a test sample in Close Rib.



Test sample (continued)

Preparation of the test sample :

- ❑ After having selected "TEST SAMPLE", use "SET PATTERN, CENTRE PATTERN" to prepare the test sample.
- ❑ Set the most impressive part of your pattern onto the test sample.
Examples :
 - 1) The front of the garment will be knitted with bands in Fair Isle and fine stripes in stocking stitch. The test sample must be prepared in Fair Isle.
 - 2) The front of the garment shows a small tuck stitch pattern. The test sample must be prepared in stocking stitch.

For the patterns without needle selection, there is no setting to be done on the test sample. Use the test sample as it is for the later knitting.

HINTS : Depending on the yarn, it is necessary to wait for some hours to allow the test sample to settle.
It is always advisable to knit always the test samples the day before knitting the garment.

Knitting :

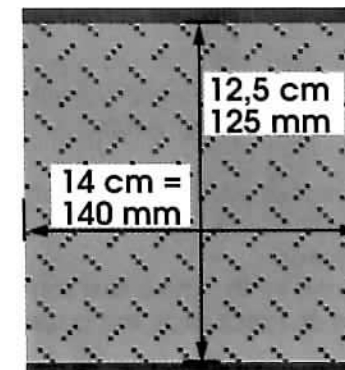
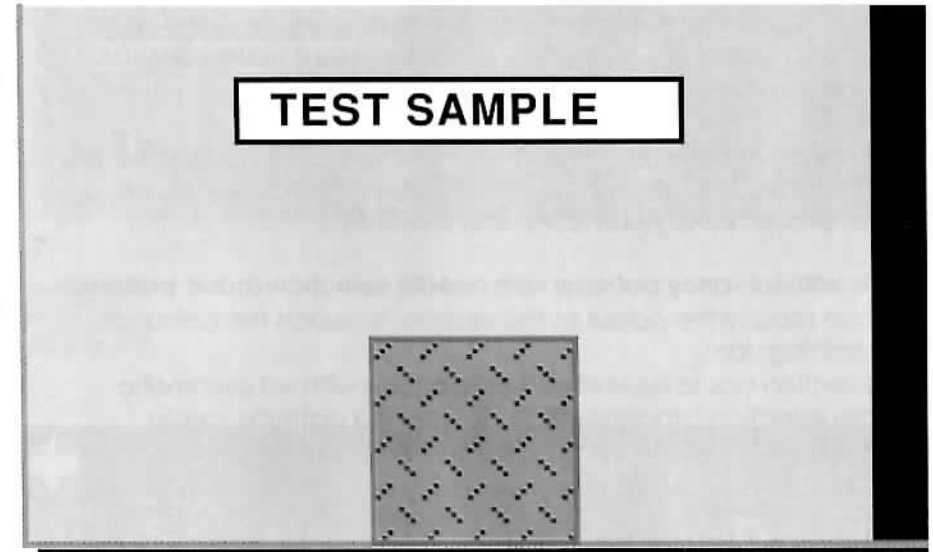
- ❑ Start and finish knitting the test sample with some rows in a contrasting coloured yarn (auxiliary yarn). When knitting the test sample, use "4 = KNITTING" (see instructions page 72). Refer to knitting with TV on page 72.

The measurements of the test sample :

The test sample must be treated like your later garment, i.e. steam or iron your test sample if you wish to steam or iron your garment.

- ❑ Measure the test sample, even and flat, from one edge to the other (without taking into account the auxiliary yarn).
- ❑ The measurement must be given in millimetres.
Example : 12,5 cm = 125 mm

HINT : If the test sample is too short in height to be measured correctly, knit twice the height of the test sample. Divide by two the relevant measurement.



ERASE SHAPE

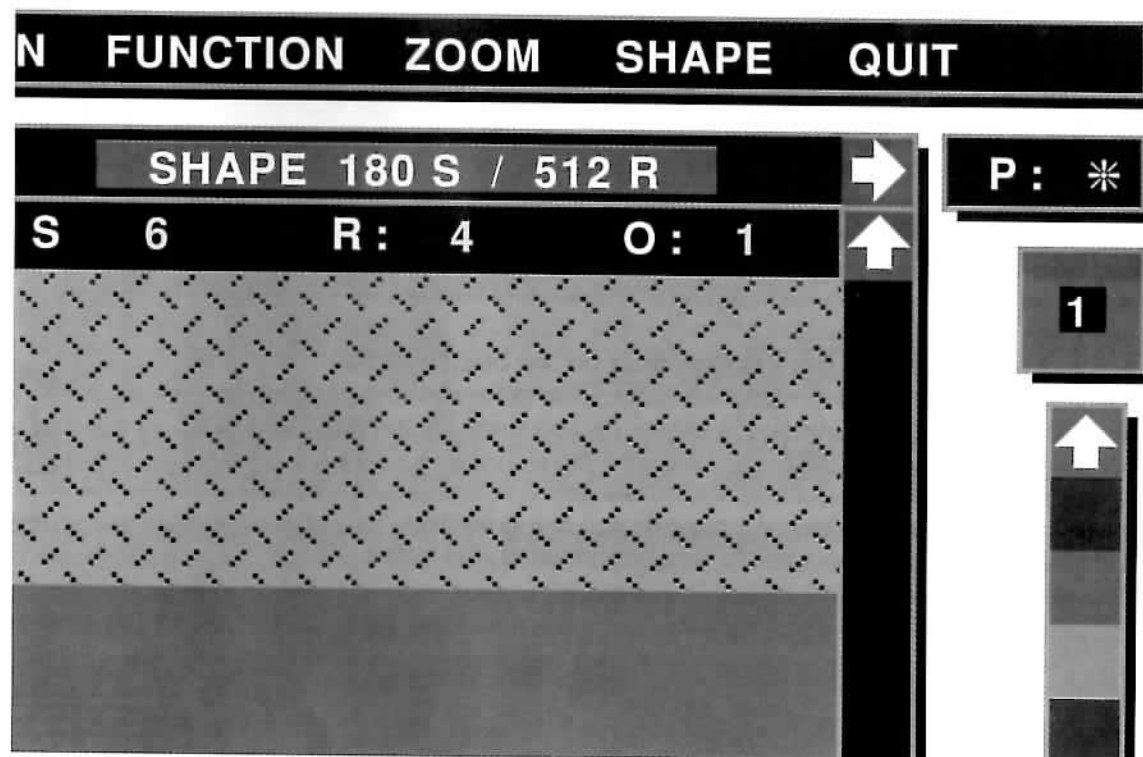
- ❑ "ERASE SHAPE" allows you to cancel a section entered previously.
- ❑ With "ERASE SHAPE", you can also cancel whatever was selected in "TEST SAMPLE".

Without shape

- ❑ The patterns can be knitted without having to set them on a section.
- ❑ You can knit your self-created pattern without having to set it or to centre it.
- ❑ This is mainly used if you work out yourself a garment or if you wish to knit straight bands.

CAUTION : Do not call up a section or a test sample. To make sure that this has not been done, select "ERASE SHAPE".

- ❑ Select "SHAPES" and "SEE SHAPE".
- ❑ The indication "SHAPE 180 S / 512 R" appears above the pattern grid.
- ❑ This means that you have at your disposal 180 stitches in width and 512 rows in height.
- ❑ On the section to be knitted, you can set the patterns with "SET PATTERN". Centre the patterns with "CENTRE PATTERN".
- ❑ "SEE SHAPE, SEE PATTERN" are always accessible.



The indication found above the pattern grid gives you the selected shape and pattern.

You have selected “KNITTING”

Introduction

CAUTION : Before selecting part “4 = KNITTING”, make sure that the pattern is correctly set on the section to be knitted and that the type of knitting corresponds too.

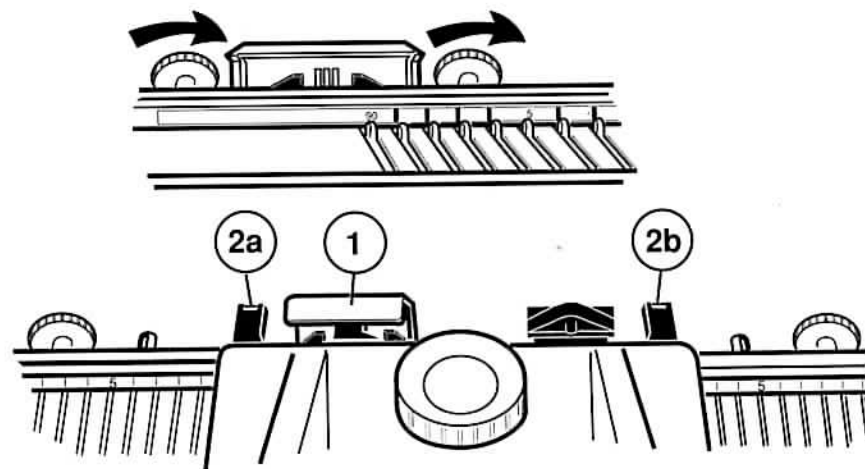
As a matter of fact, the instructions as well as the needle selection depend upon your selection.

- ❑ Set the carriage (s) of the machine according to the selected pattern. If necessary, check the instructions like type of knitting, settings of carriages and machine regarding each type of pattern (see page 86 to 118).
- ❑ To quit the programme “KNITTING”, press key “3” on the keyboard.

Cursor and cursor stops

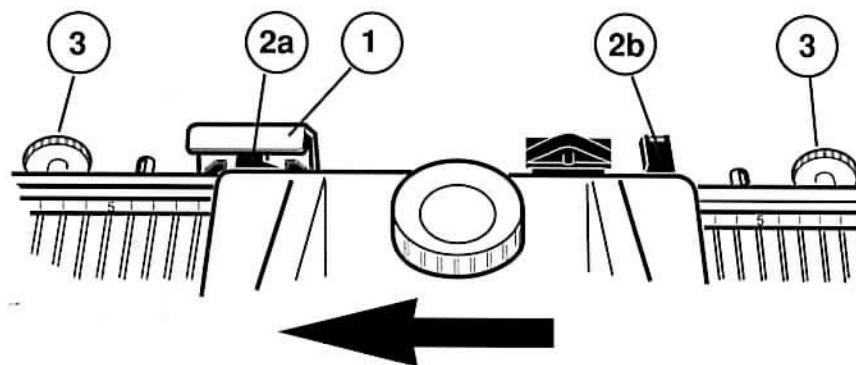
Introduction

- ❑ The cursor and the cursor stops are located on the back needle bed, at the left-hand side of your machine. To enable you to move the cursor stops so as to unlock the cursor, loosen them by turning them clockwise (to the right).
- ❑ The cursor (1) ensures the electric connection between the controller and each of the selector block feet (2) on the back carriage.



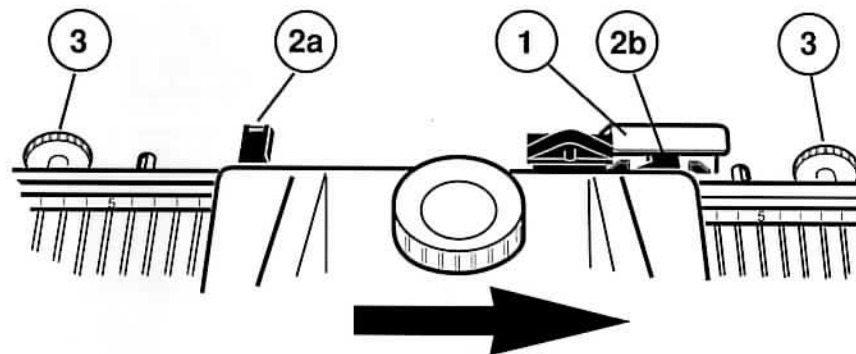
Function of cursor and cursor stops

- When the carriage is moved from right to left, the cursor (1) is carried by the left selector block foot (2a).



- When the carriage is moved from left to right, the cursor (1) is carried by the right selector block foot (2b).

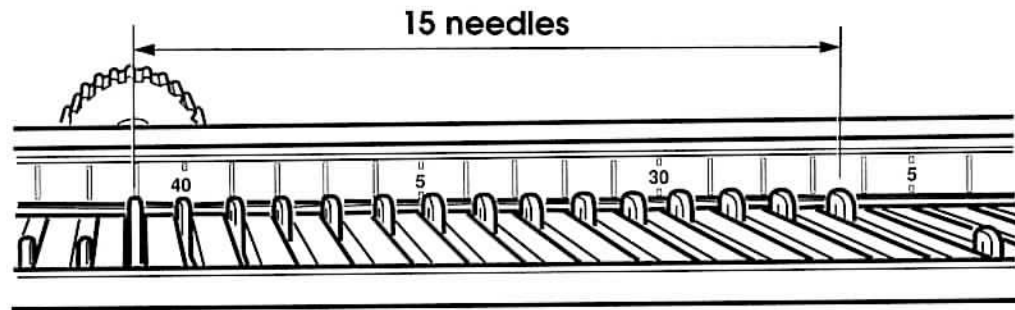
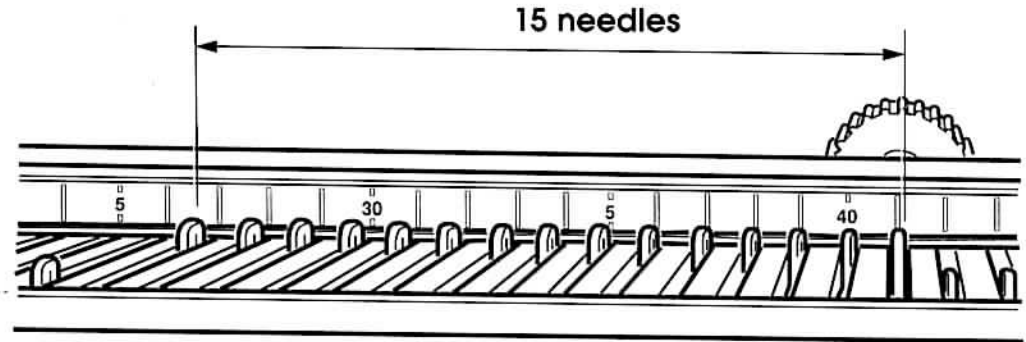
- After each row, make sure that both selector block feet have completely passed the cursor held by the stop (3).



POSITION OF THE CURSOR STOPS

In order to position the cursor stops correctly and to limit the stroke of the cursor as well as the selection area, proceed as follows :

- Count 15 needles after the last working needle on the right-hand side.
- Bring the centre of the right-hand cursor stop opposite to this 15th needle and lock the stop.
- Repeat the same operation on the left-hand side.
- Push the cursor fully against the right-hand cursor stop.



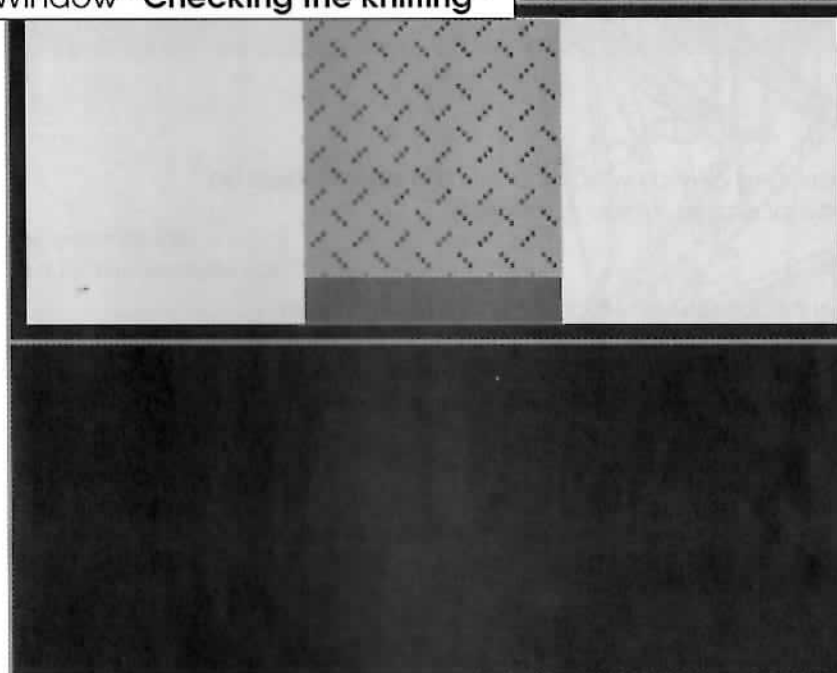
- Is the connecting lead of knitting machine/controller connected ?

Assistance to knitting

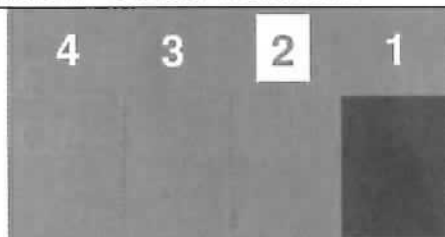
Window "Status of machine"

ROWS : Ø
STITCH : 56
HOLDING : Ø
CURSOR : -90
STOP


Window "Checking the knitting"



Window "Colour indicator"



Window "Messages"

Carriage on right-hand side
New colour 1 is 
Starting from needle 28 on left of Ø,
going towards the right-hand side,
cast-on 56 stitches in rib or other
type of welt

To quit the programme "KNITTING", press key "3" on the keyboard.

Discover information

Window "Status of machine"

ROWS

- It is an electronic counting device which counts the rows knitted on the machine (not the passages of the carriages).

STITCHES :

- It is an electronic counting device which counts the stitches in working position. It is guided by the section shown on the monitor. The stitch counter adds increases and deducts automatically decreases as well as the stitches from the needles in holding position.

HOLDING :

- It is an indicator which indicates the number of stitches in holding position.

CURSOR :

- It is an indicator which indicates the position of the cursor when setting the cursor (refer to Setting the Cursor on page 79).

STOP-GO :

- STOP : The information emitted by the controller **are not transmitted** to the machine.
- GO : The information emitted by the controller are transmitted to the machine.
It is key "**4 (S.G.)**" on the keyboard which allows you to obtain on the monitor either **STOP** or **GO**.

ROWS :	Ø
STITCH :	56
HOLDING :	Ø
CURSOR :	-9Ø
STOP	

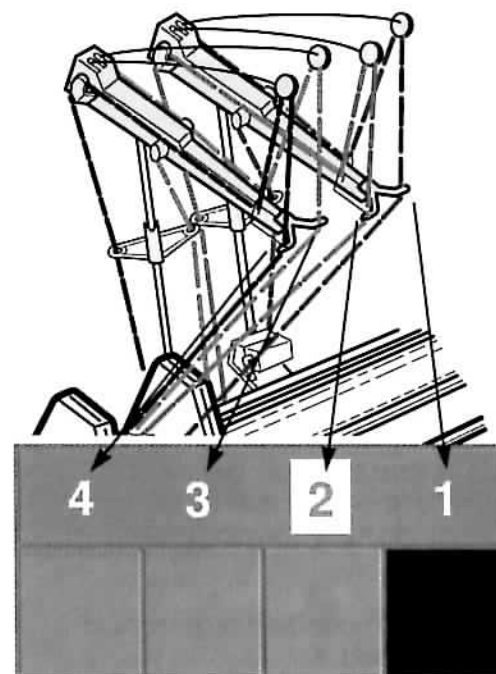
Window "Colour indicator"

- The figure found on top of each square corresponds to the tension unit to be threaded with the yarn of the indicated colour.
- The white square which covers a figure corresponds to **the yarn knitted by the needles selected** on the machine.

Examples :

- a) Knitting without selection :
Only one colour is available : colour 1
- b) Knitting in Fair Isle and Jacquard :
Colour 1 is always the main colour to be threaded in the carriage yarn guide ;
Colour 2 which is marked by the white square has to be threaded in the second yarn guide.
- c) Knitting in Norwegian Jacquard, 3-Colour Jacquard, 4-Colour Jacquard :
It is the number of the yarn which is marked by the white square that has to be threaded in the carriage yarn guide.

N.B. Watch carefully the indication shown by the white square as the blue colour of your pattern could get mixed up with the background colour on the monitor.



Window "Messages"

- The informations which appear in the window "**Messages**" vary one from another. They refer generally to the position of the carriage, the changing of the colours, the stitches to cast-on, to decrease, to increase, to be put in holding position, etc.. or can also be specific hints for the section to be knitted.

Read carefully these messages. Some of them may be warning messages after an incorrect manipulation.

Examples :

"Number of colours > 2, row 15" : you have selected a pattern with more than two colours and a type of knitting with two colours which is not compatible.

"The shape has to be worked out for starting with carriage on left-hand side" : For some patterns, it is compulsory to start knitting with carriage on left-hand side of the machine. The information has to be given when entering the section to be knitted.

"Knitting mistake" : the controller finds a selection mistake. Check the knitted row. Knit slower. If the message remains, have your machine adjusted by your dealer.

**Carriage on right-hand side
New colour 1 is
Starting from needle 56
going towards the right
cast-on 56 stitches in
type of welt**

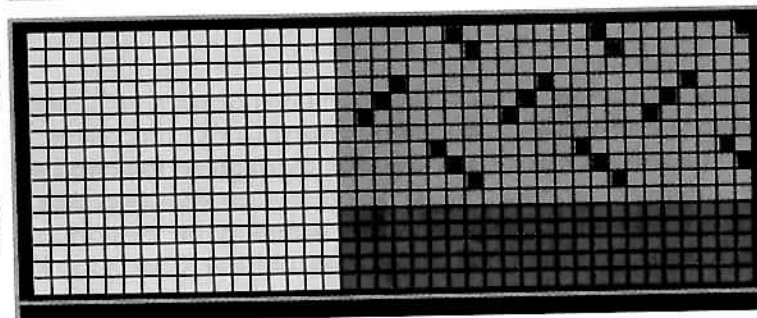
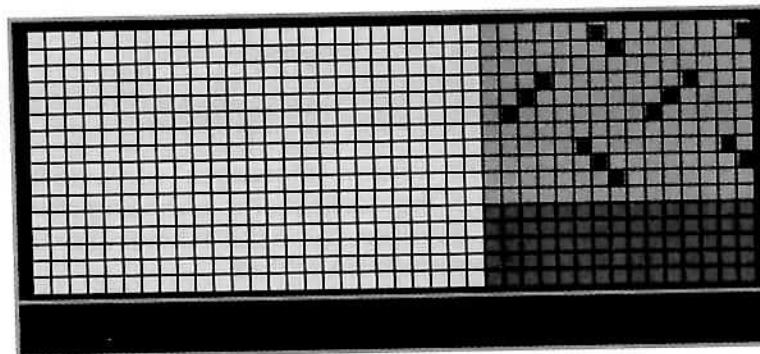
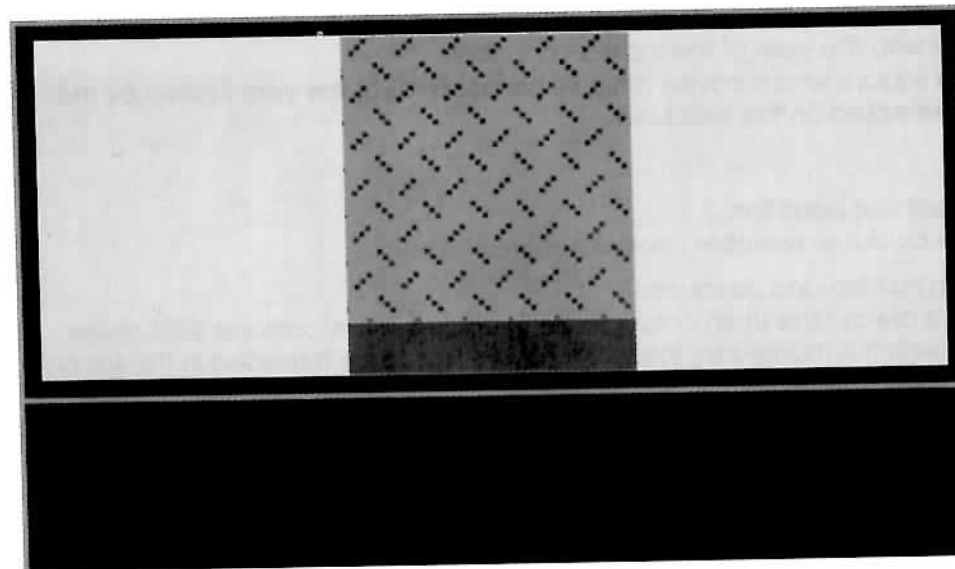
Window "Checking the knitting"

- With this window you can check on the monitor the evolution of the section being knitted.
- The window is divided in two fields :
 - the upper field represents the part of the unknitted section
 - the lower field represents the part of the section already knitted.There is nothing (no rows) behind (under) the central line.

As soon as one row of knitting is done on the machine, one row represented on the monitor moves automatically under the central line.


CAUTION : one knitted row can correspond to several passages of the carriages (refer to the section "How to undo rows" on page 80).

- The picture can be magnified by means of key "9" on the keyboard.
- The magnified picture can be moved laterally (towards the right- or the left-hand side) by means of keys "7" and "8" on the keyboard.



Setting the cursor

Before starting to knit, you must give the information to the controller about the position of the cursor on the machine as it is the cursor which transmits the information to the machine.

- ❑ Press key "5 ". A new window shows at the place where you had before "Checking the colours".
- ❑ Set the centre of the cursor opposite to a needle. Example : needle 45 on right of zero on the graduated scale found on the lower slide rail of the machine.
- ❑ On the keyboard, tap the number 45.
- ❑ Use key "C" on the keyboard to correct a possible mistake.
- ❑ On the keyboard, press key "E" to enter the information.

CAUTION : If the cursor is on the left-hand side of zero on the graduated scale, tap the sign "-" before entering the number of the needle corresponding to the centre of the cursor (the left-hand side differs from the right-hand side by the sign "-").

- ❑ Move the cursor **slowly** to the side of the carriage.

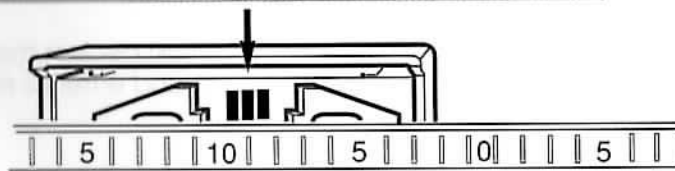
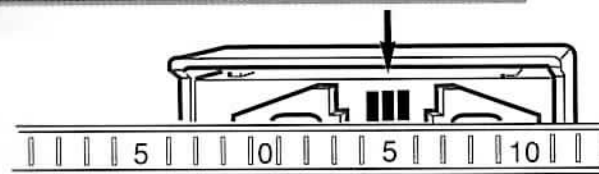
If a BIP sound is released when setting the cursor, reset the cursor.

CURSOR :
STOP

CURSOR : ? 45

CURSOR : ? 5

CURSOR : ? -9

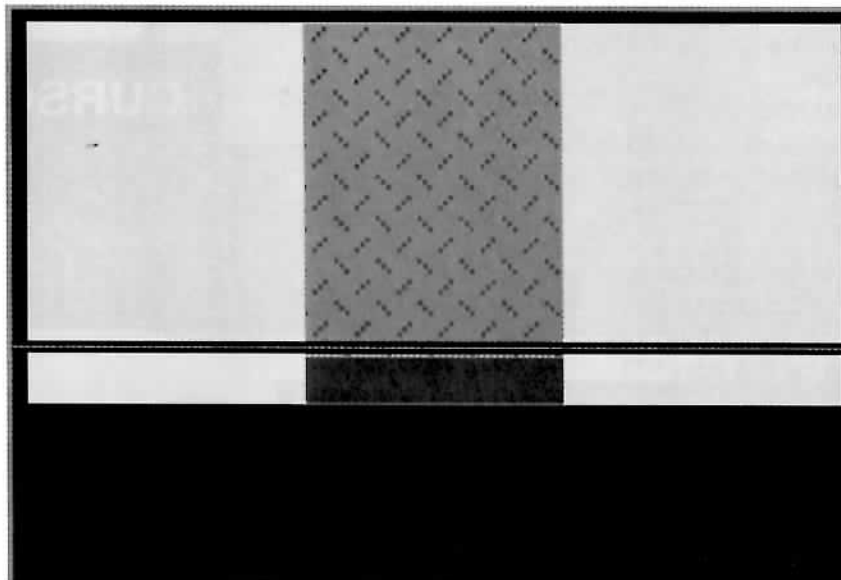


How to undo rows

Quick forward or downward move of the garment section

ROWS : 15
STITCH : 56
HOLDING : Ø
CURSOR :
STOP

ROWS : 15



To get the section to move up or down on the monitor, use key "**6 (R)**" on the keyboard.

- Press key "**6 (R)**". A new window "**ROWS**" shows at the place where you had before "Colour indicator".
- On the keyboard tap a number (e.g. 15) and press key "**E**". 15 rows of the section have moved in the lower section of the window "Checking the knitting".
- On the keyboard, tap sign "-" and a number (e.g. -15). Press key "**E**". 15 rows of the section have moved in the upper part of the window "Checking the knitting".

When undoing rows on the machine, you must deduct them from the counting device placed inside the window "Status of machine". Use key "**6 (R)**" on the keyboard and enter as **minus** the number of rows which have been undone.

You are in the type of knitting "**4-Colour Jacquard**" :

- Eight passages of the carriages are necessary to knit two rows which are registered by the counting device inside the window "Status of machine".
 - 1st case** : the double row which has been started with one to seven passages of the carriages is undone. Unpick the rows until you get back to colour 1 including it. Press key "6" and enter figure "0" to set back the colour 1.
 - 2nd case** : the double row is finished i.e. eight passages of the carriages. Unpick the four colours. Press key "6" and tap "-2". Always tap "- 2" for each unpicked double row.

You are in the type of knitting "**3-Colour Jacquard**" :

- Six passages of the carriages are necessary to knit two rows which are registered by the counting device inside the window "Status of machine".
 - 1st case** : the double row which has been started with one to five passages of the carriages is undone. Unpick the rows until you get back to colour 1 including it. Press key "6" and enter figure "0" to set back the colour 1.
 - 2nd case** : the double row is finished i.e. six passages of the carriages. Unpick the three colours. Press key "6" and tap "-2". Always tap "- 2" for each unpicked double row.

You are in the type of knitting "**Norwegian Jacquard**" :

- Two passages of the carriages are necessary to knit one row.
 - 1st case** : the row started with one passage of the carriages is undone. Unpick the stitches to get the yarn on the right-hand side. Press key "6" and enter figure "0" to set back the colour 1.
 - 2nd case** : You undo one or several rows. Press key "6" and tap "- the number of unpicked rows" (two passages of the carriages equal one row).

N.B. With the type of knitting "**3 or 4-colour Jacquard**", you must necessarily resume knitting with carriages on the left-hand side and colour 1 threaded in the yarn guide. With the type of knitting "**Norwegian Jacquard**", you must necessarily resume knitting with carriages on the right-hand side.

You are in the type of knitting "**Fancy pattern, Lace pattern, Fair Isle, Jacquard**" :

- Each unpicked row must be deducted with key "6 (R)".

CAUTION : When the back carriage is disconnected from the cursor, the passage is registered by the controller.

Key "H" Help

- ❑ The red symbols on the keys of the keyboard i.e. keys "4, 5, 6, 7, 8, 9" are only used when knitting.
- ❑ To help you to recognize the symbols, press key "H" which you find on the keyboard of the controller.
- ❑ The correspondance of the keys is shown automatically on the monitor.
- ❑ To quit the function "Help", press a key on the keyboard.

HELP

- (3) Quit knitting
- (4) Stop or Go
- (5) Set cursor
- (6) Change row
- (7) Move zoom to the left
- (8) Move zoom to the right
- (9) Zoom

To quit, press a key.

Help when knitting Intarsia

When knitting Intarsia, you need the special (optional) accessory Intarsia Carriage. Refer to the instructions for use provided with this carriage.

- ❑ If you already have an Intarsia Carriage, follow the instructions hereafter for changing colours and for the operations to be done on the machine.
- ❑ Use the type of knitting "**Fair Isle**".
- ❑ After having set the pattern in the shape, you must take all information for knitting from "**INFO SHAPE**" (function **4 = KNITTING** is not used) i.e. :
 - the number of stitches to be cast-on,
 - the number of rows to be knitted for the welt, etc.

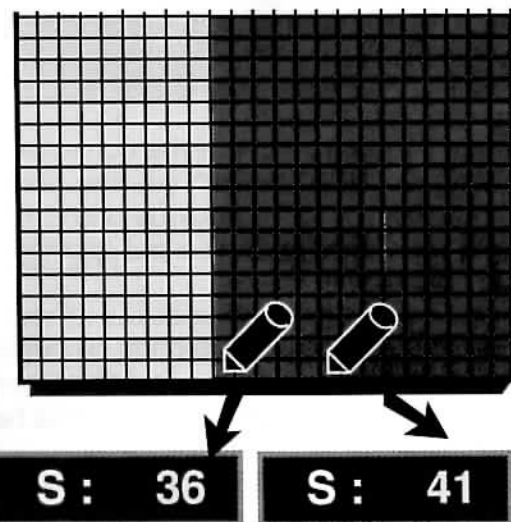
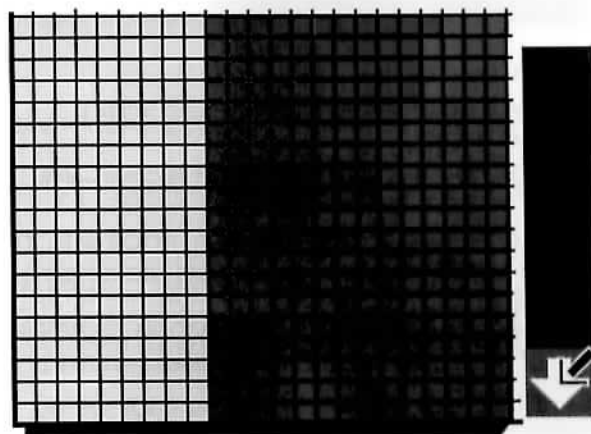
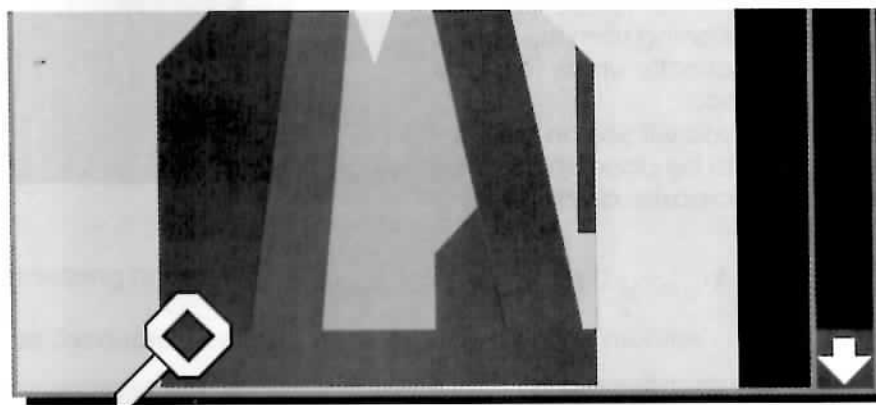
CAUTION : Where to lay the yarns over the needles, decreases, increases, etc, are taken directly from the monitor by means of the pencil and the stitch (S) and row (R) indicators.

Casting-on stitches and knitting the welt

- ❑ Centre your knitting in relation with zero on the graduated scale on the lower slide rail.
- ❑ Knit the welt in rib or in another type of pattern if the garment includes a welt.

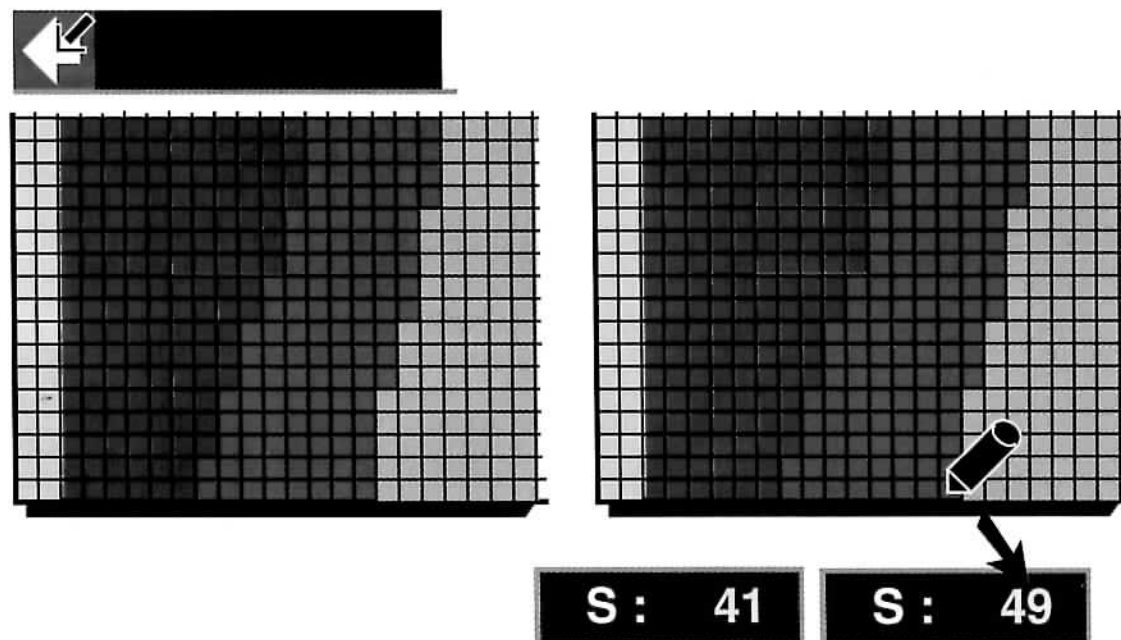
Knitting the Intarsia pattern — Colour information

- ❑ By means of the mouse from the controller, bring the magnifying glass on the left-hand edge of the section, at the level where the colour changes. Click the mouse.
- ❑ Using the vertical shift symbol, move the section down until the first pattern line becomes level with the first line on the pattern grid.
- ❑ Place the pencil tool on the first left-hand square of the section to be knitted. The indicator **M** indicates the number of the first left-hand needle of the knitting which corresponds to the same number printed on the upper graduated scale.
- ❑ On the same pattern line, place the pencil tool on the last square of the same colour. The indicator **M** indicates a number.
- ❑ On the machine, using the upper graduated scale as a guide, lay the yarn over the needle corresponding to the **M** value.



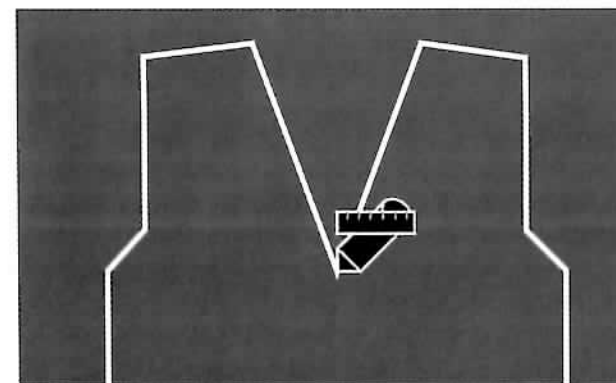
Knitting the Intarsia pattern — Colour information

- ❑ Using the horizontal shift symbol, move the line to the next colour and place the pencil tool again on the last square of the same colour. The indicator **M** indicates a number which corresponds to the needle on the machine. Lay the yarn of the new colour over the needles.
- ❑ Proceed in the same way for all colours in the row.
- ❑ Knit the row.
- ❑ Using the vertical shift symbol, move the pattern one line down. Repeat the same operations in the opposite direction (starting from the right-hand side) so as to see exactly where to place the yarns on the machine.
- ❑ Proceeding in this way, you will see on the monitor the operations to be done on the machine (decreases, increases, dividing the knitting, etc.)



How to draw on the garment section

- ❑ The section worked out by the controller, is shown on the monitor.
- ❑ By means of "INFO SHAPE", you can obtain its main values, number of stitches in width, number of rows to the neckline and to the end of the knitting.
- ❑ By means of the **PENCIL** tool put at different places along the outer line of the section, you can obtain other values.
- ❑ On the pattern grid, with a colour different from the one used for the creation, trace with the ruler the outer line of the section in correspondance with the values measured previously.
- ❑ Create your pattern on the section roughly redesigned.
- ❑ Use function "CHANGE COLOUR" of the heading **PATTERN** to erase the outer line of the section.
- ❑ Use functions "SET PATTERN and CENTRE PATTERN" of the heading **SHAPE** for the final setting before starting to knit.



Save- Restore

Save

Function "5 = **SAVE**" allows you to record on the disk "Personal, Save and Display" all information whether you are just creating a pattern or knitting.

The controller copies exactly all values as they are when saving them.


- On the keyboard, press key "5".
- Insert your SAVE disk.
- Press a key to confirm your request.
- The controller requires about 3 minutes to copy the information onto the disk and save your work.
- You may continue to knit using the controller or switch it off.

The information which are saved, will only be erased when saving something again.

CAUTION : With the type of knitting "3-, 4-colour Jacquard, Norwegian Jacquard", colour 1 must be shown on the monitor before you can save your work.

Restore

Function "1 = **RESTORE**" allows you to restore all informations recorded beforehand when they were saved.

- After having switched on your controller with either the "TV Programme" or the "Display Programme", press key "1".
- Insert your SAVE disk.
- Press a key to confirm your request.
- The controller requires about 2 minutes to restore the information which were recorded on the SAVE disk.
- Insert again your disk "TV Programme" or "Display Programme" according to the selected mode.
- To knit, select function **GO** from "Status of machine", and **set necessarily the cursor** using key "5 ".

HOW TO KNIT THE VARIOUS PATTERNS

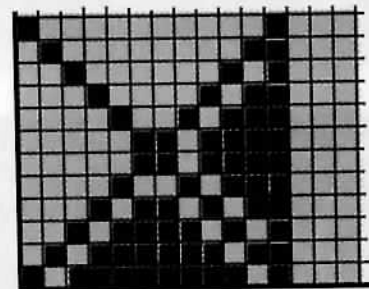
Two-colour Fair Isle/Jacquard

Type of knitting : **FAIR ISLE** for single bed work
JACQUARD for double bed work

The squares showing the main colour correspond to the non-selected needles which will knit the main yarn threaded in the carriage yarn guide.
The squares showing the contrasting colour correspond to the selected needles which will knit the yarn threaded in the second yarn guide.

All Fair Isle Jacquard techniques with two colours must be created with only two colours on a same line.

- Select a colour as main yarn. You must always use the smallest number of the colour from the palette.
- Create your pattern with a second colour of your choice. You must always use a bigger number for this colour than the number for the main colour.
- **Specific case** : If you wish to create different coloured bands, use function "PLACE ORIGIN". Select the new colour and use function "ERASE DRAWING".

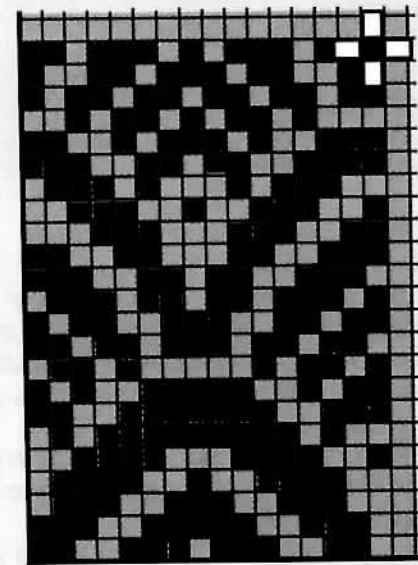


continued ...

Patterns from the catalogue : N° 1 to 384

- To repeat the pattern :
The pointer  of function "ALL-OVER PATTERN" is always placed in the top right-hand corner of the pattern.

ALL-OVER PATTERN



Knitting

- Several methods are possible. Choose the method which suits you best according to the selected yarns.

Note : The wrong or purl side of Fair Isle shows floats. It is therefore advisable to select patterns showing the shortest possible floats.

continued ...

How to use the second yarn guide

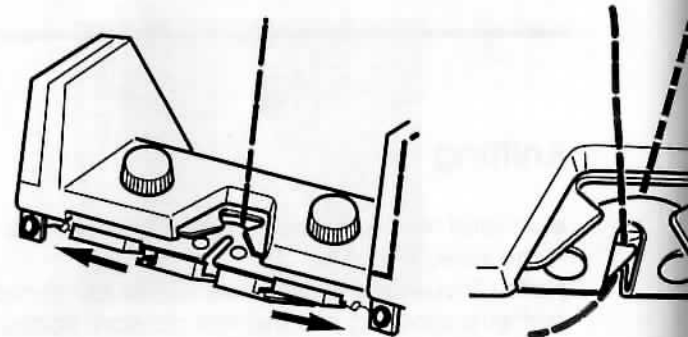
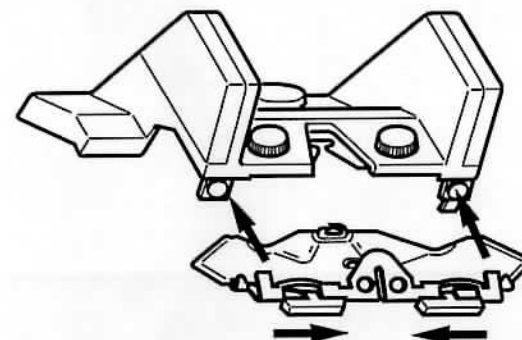
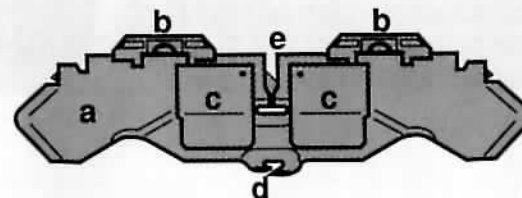
Description :

- a. the body
- b. the locking buttons to fasten it to the carriage
- c. the needle raisers which can be released and turned
- d. slot for colour number 1 (main colour)
- e. slot for colour number 2 (contrasting colour)

How to fasten it :

- The yarn corresponding to colour 1 is threaded in the carriage yarn guide.
- Place the front bed in its lowest position.
- Push both locking buttons inwards.
- Set the two metal fingers into the positioning slots located just under the handle of the back carriage.
- Holding the second yarn guide in place, move the two locking buttons outwards.
- Thread the yarn corresponding to colour 2 through the tension unit and slot (e) of the second yarn guide.
- Fasten the end of the yarn to the yarn clip found on the table clamp.


Caution : If you have to thread the carriage yarn guide on the left-hand side, make sure to thread the yarn through slot (d) of the second yarn guide, otherwise your knitting will drop from the machine.



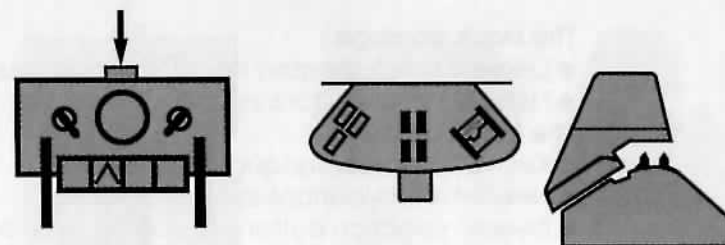
continued ... - Fair Isle -

Settings

The back carriage :

- Depress simultaneously key  and Jacquard key
- Needle return buttons in upper position

Front needle bed in normal position




Knitting

- All stitches must be placed on the back bed.
- The yarn corresponding to colour 1 is threaded in the main yarn guide.
- Fasten the second yarn guide to the carriage and thread the yarn corresponding to colour 2.
- Fasten the yarn to the left-hand yarn clip found on the table clamp.

continued ... - Fancy Jacquards (method 1) -

Settings

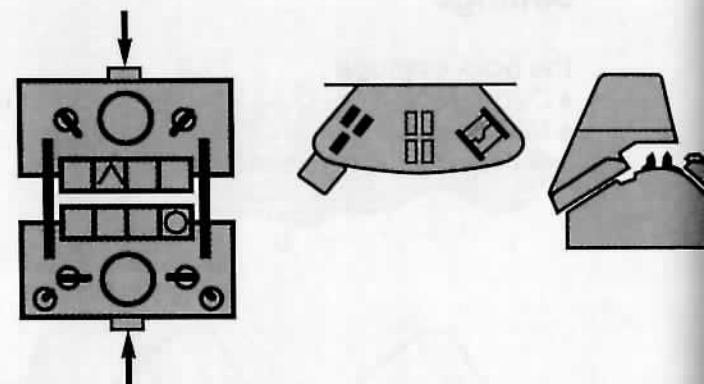
The back carriage :

- Depress simultaneously key  and Jacquard key.
- Needle return buttons in upper position.

The front carriage :

- Key , depress Jacquard key.
- Needle return buttons in neutral position.
- Needle selection buttons in working position.

Front needle bed in normal position




Knitting

- You must be in Close Rib (Every Needle Rib) with an even number of needles on each needle bed.
- The yarn corresponding to colour 1 is threaded in the main yarn guide.
- Fasten the second yarn guide to the carriage and thread the yarn corresponding to colour 2 through the tension unit.
- By means of this yarn, knit by hand the first right-hand needle to form a stitch, then thread the second yarn guide.
- Fasten the end of the yarn to the right-hand yarn clip found on the table clamp.


continued ... - Jacquard (method 2) -

Settings

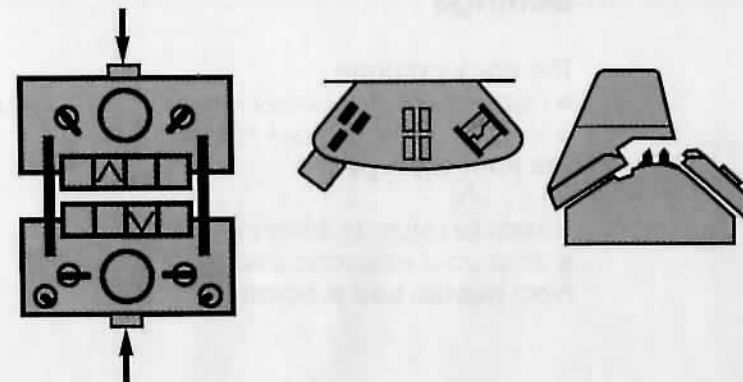
The back carriage :

- Depress simultaneously key  and Jacquard key.
- Needle return buttons in upper position.

The front carriage :

- Depress simultaneously key  and Jacquard key.
- Needle return buttons in neutral position.

Front needle bed in normal position




Knitting

- You must be in Close Rib (Every Needle Rib).
- The yarn corresponding to colour 1 is threaded in the main yarn guide.
- Fasten the second yarn guide to the carriage and thread the yarn corresponding to colour 2 through the tension unit.
- By means of this yarn, knit by hand the first right-hand needle to form a stitch, then thread the second yarn guide.
- Fasten the end of the yarn to the right-hand yarn clip found on the table clamp.

continued ... - Reversible Jacquard (method 3) -

Settings

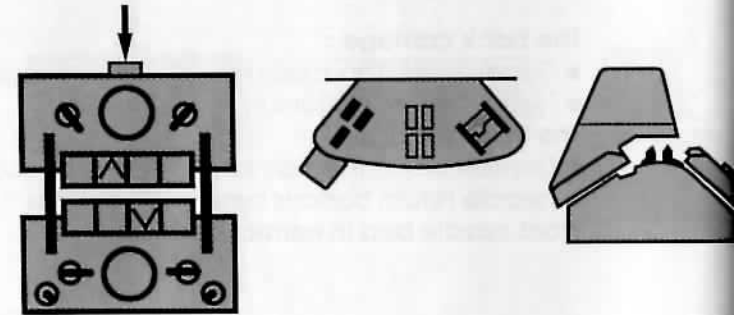
The back carriage :

- Depress simultaneously key  and Jacquard key.
- Needle return buttons in upper position.

The front carriage :

- Key .
- Needle return buttons in neutral position.
- Jacquard key cancelled.

Front needle bed in normal position




Knitting

- You must be in Close Rib (Every Needle Rib).
- The yarn corresponding to colour 1 is threaded in the main yarn guide.
- Fasten the second yarn guide to the carriage and thread the yarn corresponding to colour 2 through the tension unit.
- By means of this yarn, knit by hand the first right-hand needle to form a stitch, then thread the second yarn guide.
- Fasten the end of the yarn to the right-hand yarn clip found on the table clamp.


continued ... - Jacquard with long stitch effect (method 4) -

Settings

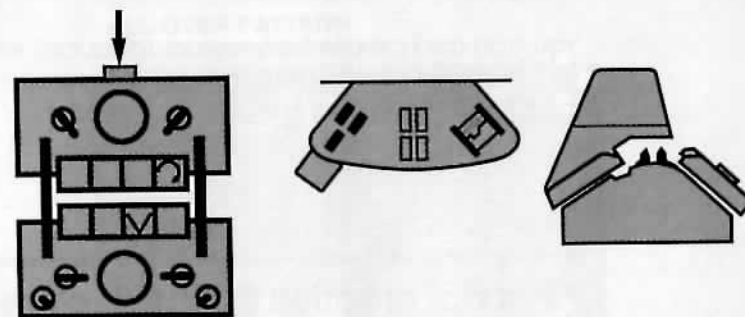
The back carriage :

- Depress simultaneously key  and Jacquard key.
- Needle return buttons in upper position.

The front carriage :

- Key .
- Needle return buttons in neutral position.
- Jacquard key cancelled.

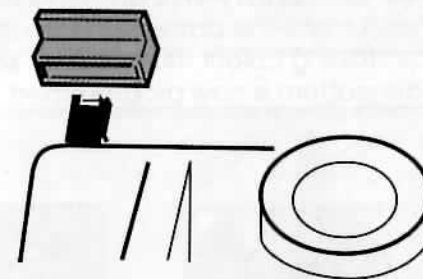
Front needle bed in normal position



Knitting

- You must be in Close Rib (Every Needle Rib).
- Fit the cover onto the left-hand selector block foot.
- The yarn corresponding to colour 1 is threaded in the main yarn guide.
- Fasten the second yarn guide to the carriage and thread the yarn corresponding to colour 2 through the tension unit.
- By means of this yarn, knit by hand the first right-hand needle to form a stitch, then thread the second yarn guide.
- Fasten the end of the yarn to the right-hand yarn clip found on the table clamp.

Caution : Remember to remove the cover from the selector block foot when using other techniques or when knitting other patterns.



Norwegian Jacquard ...

Type of knitting : NORWEGIAN JACQUARD

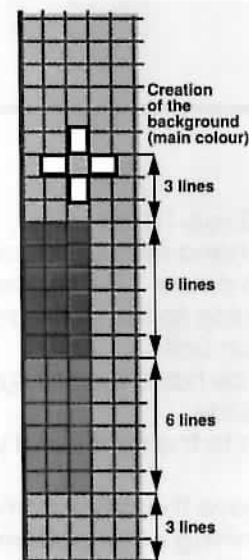
You can also create Norwegian Jacquard with two colours. It is the type of knitting which allows you to get a different texture of knitting. Refer to Personal Creation page 86 "two-colour Fair Isle/Jacquard").

Personal creation for multicoloured Norwegian Jacquard

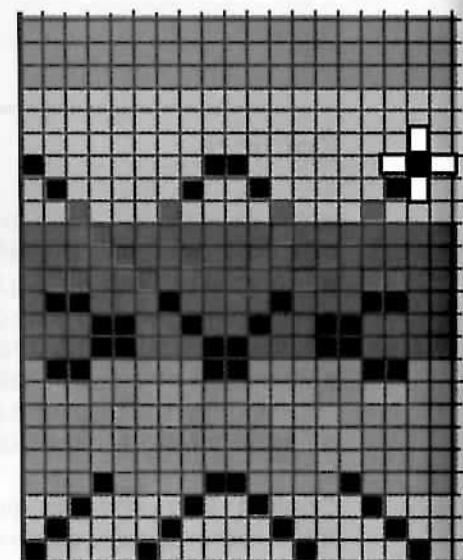
Norwegian Jacquard patterns must be created with two colours only on a same line.

- Select the main colour to start the pattern. You must always use the smallest number of the colour from the palette.
- The first selected main colour must hold an **uneven number of lines**.
- Then, programme the different coloured bands holding an **even number of lines**.
- You must necessarily finish with a band showing the main colour from the beginning and holding an **uneven number of lines**.
- Use "ALL-OVER PATTERN" to repeat the different bands in main colour.
- Programme the pattern on the different , just created, bands in main colour. Each contrasting colour must hold an **even number of lines**.
- Your pattern is now programmed, use again "ALL-OVER PATTERN".

ALL-OVER PATTERN



ALL-OVER PATTERN



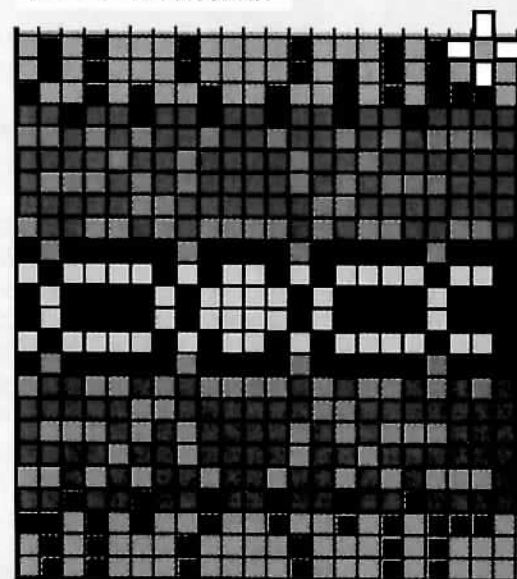
continued ...

Patterns from the catalogue N° 385 to 396

- To repeat the pattern :
The pointer  of function "ALL-OVER PATTERN" is always placed in the top right-hand corner of the pattern.


Note : All Fair Isle / Jacquards with 2 colours N° 1 to 384 can be knitted in Norwegian Jacquard by selecting the type of knitting "NORWEGIAN JACQUARD".

ALL-OVER PATTERN




Settings for two- and multicoloured patterns

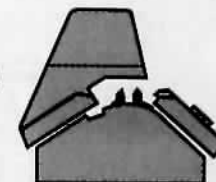
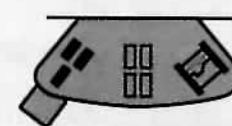
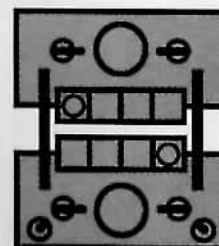
The back carriage :

- Key 
- Needle return buttons in neutral position.
- Jacquard key cancelled.

The front carriage :

- Key 
- Needle return buttons in neutral position.
- Jacquard key cancelled.
- Needle selection buttons in working position.

Front needle bed in normal position



continued ...

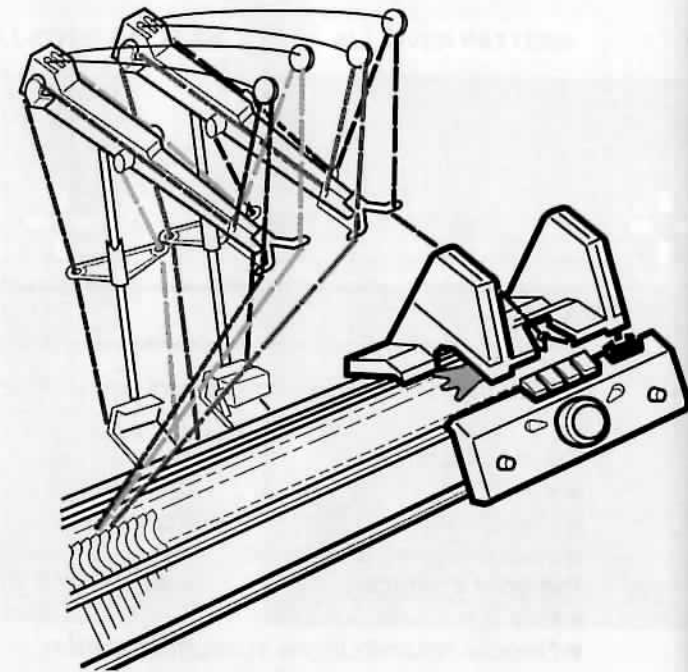
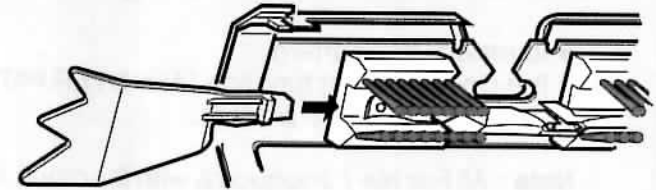
Knitting two- and multicoloured patterns

- You must be in Close Rib (Every Needle Rib) with an **even** number of needles on each needle bed. The carriages are on the right-hand side.
- Fit the second tension unit.
- Set the Jacquard claw to the left-hand side of the carriage, marks and stud \circ on top, into the spring located between the left-hand brush of the handle.
- Threading :

- Thread the right-hand side of the right-hand tension unit with the yarn corresponding to colour 1 and the left-hand side with the yarn corresponding to colour 2.
- Thread the remaining colours in the left-hand tension unit.

NOTE : If you have selected or created a pattern showing more than 4 colours, you will have to change the yarns in the tension units.

- Fasten the yarn corresponding to colour 1 to the right-hand yarn clip found on the table clamp and the other yarns to the left-hand yarn clip.
- As you knit, the yarns will place themselves automatically into one or the other of the two notches of the Jacquard claw and will not risk to get caught on the flow combs or under the brushes of the carriage.
- Set the centre of the cursor stop opposite to the 15th needle after the last working needle.
- Push the cursor fully against the right-hand cursor stop.



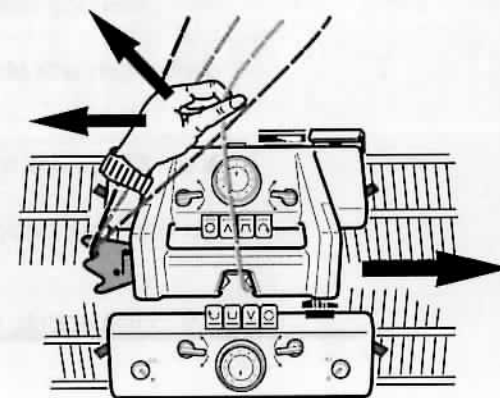
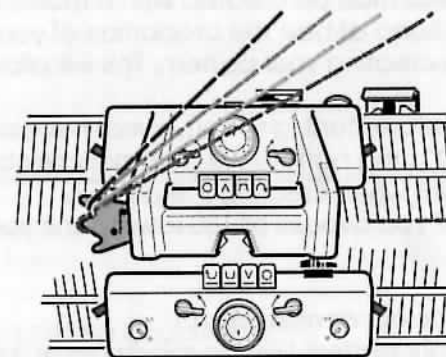
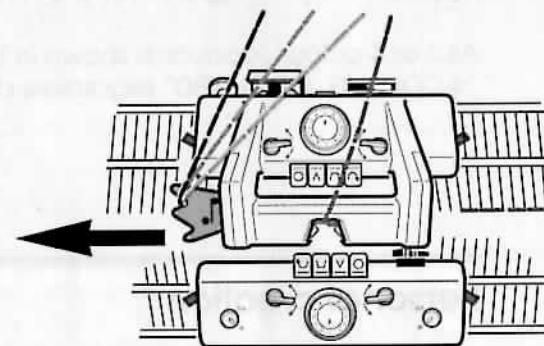
continued

Knitting

- Thread the carriage yarn guide with the yarn corresponding to colour 1 shown on the monitor and knit one row. The carriages are on the left-hand side.
- Unthread the yarn guide taking care to pass the yarn well under the brushes so that it does not get caught.
- Place the yarn into one of the notches of the Jacquard claw.
- ★ ● Thread the yarn guide with the yarn corresponding to colour 2 shown on the monitor and knit two rows. Unthread the yarn guide and place the yarn into the notch of the Jacquard claw.
- Thread the yarn guide with the yarn corresponding to colour 1. To make threading easier, pull the yarn forward and guide it in front of the carriage yarn guide (the yarn passes in front of the right-hand brush of the carriage), then pull it towards the left and back of the carriage handle. It will thread itself automatically. Knit two rows. Unthread the yarn guide and place the yarn into the notch of the Jacquard claw.★
- Repeat from ★ to ★ taking care to use the colours as shown on the monitor without having to respect anymore the placement of the yarns in the tension unit.

Caution : To prevent the yarns from getting entangled when threading the yarn guide, take care to take them off the Jacquard claw right at the level of the tension unit, i.e. very high.

Note : The manipulations are identical when knitting two-coloured Norwegian Jacquard.



Three/Four colour Jacquards ...

Type of knitting : THREE / FOUR COLOUR JACQUARD

All 3 or 4-colour Jacquards shown in the catalogue are knitted using method "4-COLOUR JACQUARD" regardless of the number of colours being used.

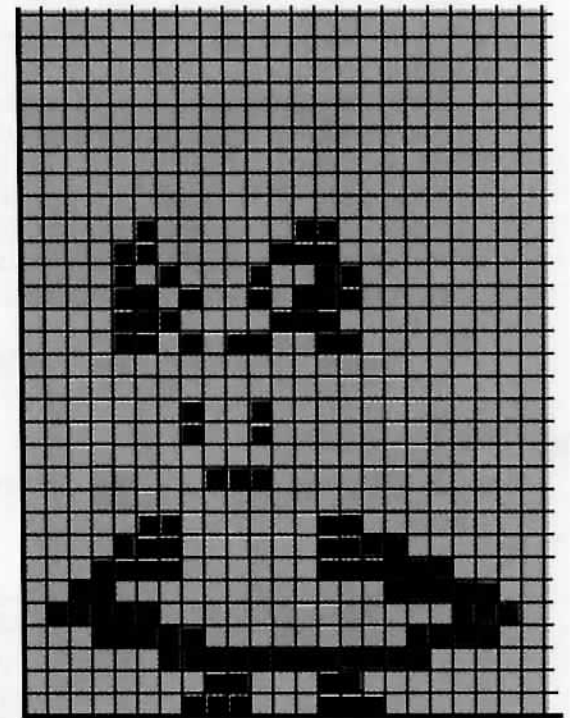
Personal creation

All Jacquards must be created with a maximum of 4 colours on a same line. In order to keep at best the proportion of your patterns, select as type of knitting "FAIR ISLE" when creating your pattern. This will allow you to give it the required final aspect.

Caution : Before starting to knit, select necessarily as type of knitting "4-COLOUR JACQUARD" : the pattern will automatically be doubled in height. This must be taken into account when creating the pattern.

Example : If you dispose of 180 rows to knit your pattern, you will have to create it on 90 rows.

- Select a colour as main yarn.
- Create your pattern using a maximum of 3 other colours on a same line.



continued ... - Decorative desings -

Patterns from the catalogue N° 621 to 710

- All patterns shown in the catalogue are knitted as they are memorized on the floppy disk.


Knitting

- For a 4-coloured pattern, you will always have to make 8 passages of the carriages in order to knit a double row. When knitting a pattern, you might have to make rows where the yarn will only be knitted on the front bed. This is the case of pattern lines which were programmed for 1, 2 or 3 colours. The needles are not selected on the back bed when you knit colours which are not programmed on these lines. Your garment will thus show an even texture as you will always make the same number of rows to get a double row regardless of the number of selected colours on this double row.
- **CAUTION** : If your garment is in 3 or 4 colours and you wish to knit some parts plain, you must select the type of knitting "**3- or 4-colour Jacquard**" and select "**PLACE DESIGN**" as the pattern grid is blank (no pattern). Knit with the four yarns threaded in the tension units as when knitting the pattern. Start with carriage on left-hand side and do not take into account the message "**Your pattern must have 4 colours**".
- Some patterns illustrated in 2 colours, can be knitted by using the type of knitting " **TWO-COLOUR FAIR ISLE / JACQUARD**" in one or the other proposed techniques.

continued ... - 3-4 colour Jacquard -

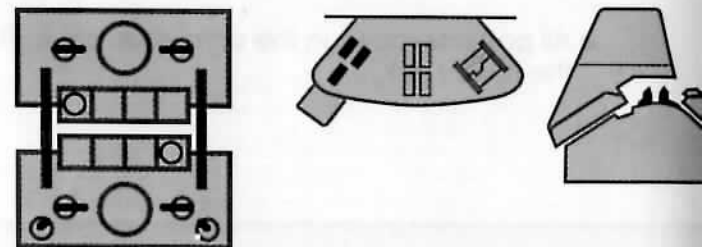
Setting

The back carriage :

- Key 
- Needle return buttons in neutral position.
- Jacquard key cancelled.

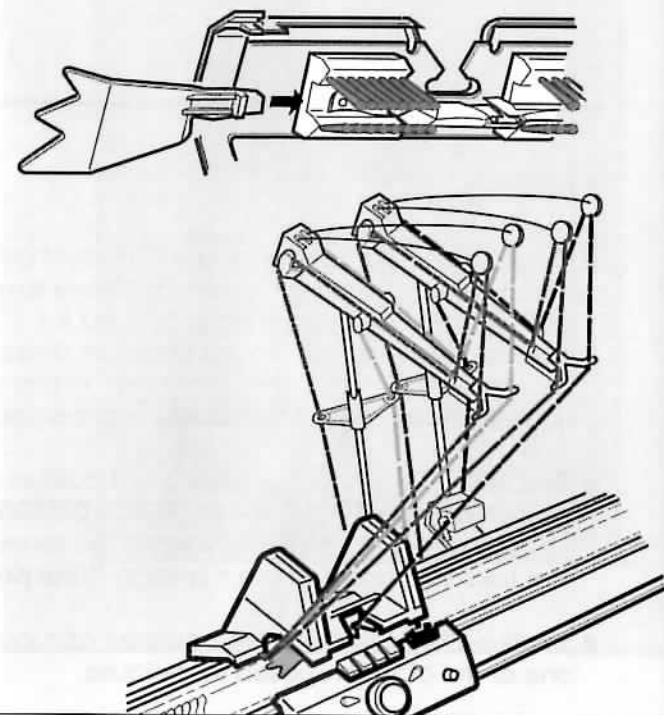
The front carriage :

- Key 
- Needle return buttons in neutral position.
- Needle selection buttons in working position.



Knitting

- You must be in Close Rib (Every Needle Rib) with an even number of needles on each needle bed. The carriages are on the left-hand side.
- Fit the second tension unit.
- Set the Jacquard claw to the left-hand side of the carriage, marks and stud ϕ^p on top, into the spring located between the left-hand brush of the handle.
- Threading :
 - Thread the right-hand side of the right-hand tension unit with the yarn corresponding to colour 1 and the left-hand side with the yarn corresponding to colour 2.
 - Thread the right-hand side of the left-hand tension unit with the yarn corresponding to colour 3 and the left-hand side with the yarn corresponding to colour 4.
- Fasten the yarns to the left-hand yarn clip found on the table clamp.
- As you knit, the yarns will place themselves automatically into one or the other of the two notches of the Jacquard claw and will not risk to get caught on the flow combs or under the brushes of the carriage.
- Place the centre of the cursor stop opposite to the 15th needle after the last working needle.
- Push the cursor fully against the left-hand cursor stop.



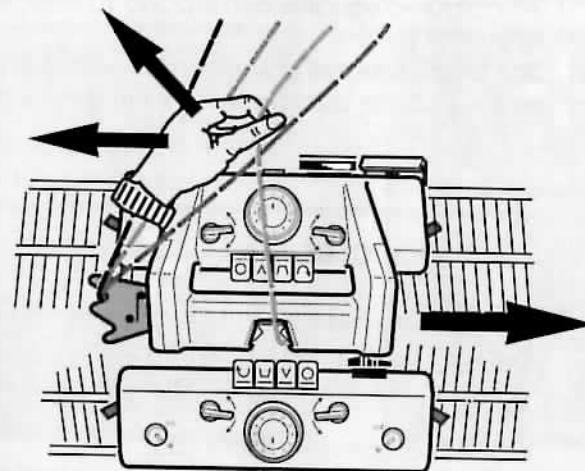
continued

Knitting to be continued

- ★ ● Thread the yarn guide with colour 1 and knit two rows.
- Unthread the yarn guide and place the yarn into one of the notches of the Jacquard claw.
- Thread the yarn guide with colour 2 and knit two rows.
- Unthread the yarn guide and place the yarn into the notch of the Jacquard claw.
- Thread the yarn guide with colour 3 and knit two rows.
- Unthread the yarn guide and place the yarn into the notch of the Jacquard claw.
- Thread the yarn guide with colour 4 and knit two rows.
- Unthread the yarn guide and place the yarn into the notch of the Jacquard claw.★
- Repeat from ★ to ★ taking care to use the colours always in the same sequence i.e. 1, 2, 3 and 4.

Caution : To prevent the yarns from getting entangled when threading the yarn guide, take care to take them off the Jacquard claw right at the level of the tension unit, i.e. very high and always pass them in front of the other yarns.

To make threading easier, pull the yarn forward and guide it in front of the carriage yarn guide (the yarn passes in front of the right-hand brush of the carriage), then pull it towards the left and back of the carriage handle. It will thread itself automatically.



Tuck stitches ...

Type of knitting : FANCY PATTERN

All coloured squares correspond to selected needles which are building stitches (stocking stitch).

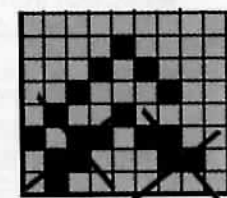
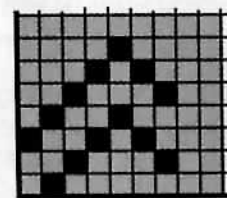
The black squares correspond to non-selected needles which are in relation with the settings of the carriages. Tuck stitches : key 

Personal creation

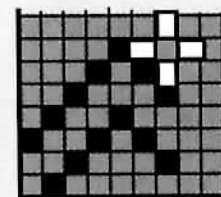
The patterns must be prepared with one colour as main yarn, or with several colours if they are placed in horizontal stripes.

You must always use the black colour to create or modify a pattern.

- Select a colour as main yarn.
- Create the pattern with the requested black colour.
- **Never programme two squares next to each other.**
- Use function "DOUBLE ROW" to get more tuck stitches on the same needle (two, four, six).
To get an uneven number of tuck stitches (three, five) on the same needle, it is necessary to create all squares one after the other.
- **Caution** : The number of tuck stitches on the same needle, i.e. the number of squares on top of the other, depends on the thickness of the selected yarn. It is advisable to knit a sample with the selected yarn.
- If you wish to knit different coloured horizontal stripes, use function "PLACE ORIGIN". Select the new colour and make "ERASE DRAWING". Always use a black colour to create your patterns.





DOUBLE ROWS



continued

Patterns from the catalogue : N° 397 to 480 - 493 - 494 - 499 to 512

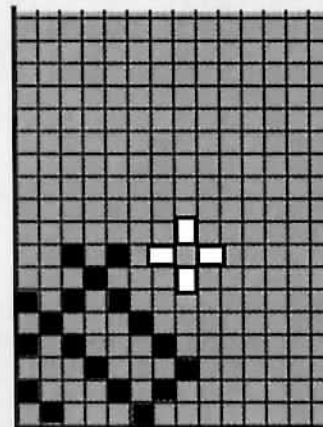
- On the disk, the patterns are memorized on single row sequence.
- The samples shown in the catalogue are knitted on double row sequence.
- According to the selected yarn and the required effect, you can double the tuck stitches by using function "DOUBLE ROWS".
- The pointer  of function "DOUBLE ROWS" is always placed in the top right-hand corner of the pattern.
- To repeat the pattern :
The pointer  of function "ALL-OVER PATTERN" is always placed in the top right-hand corner of the pattern.

Patterns N° 493 - 494 - 499 to 512 are single designs

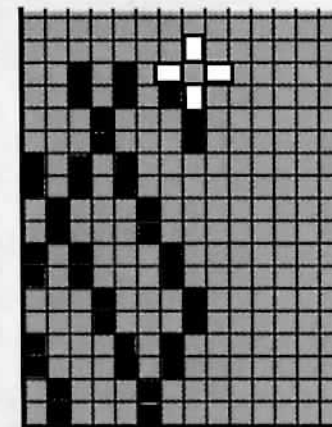
Specific cases : Patterns N° 474 and 480

- These patterns are memorized on a single row sequence and are knitted as such.

DOUBLE ROWS



ALL-OVER PATTERN

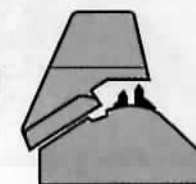
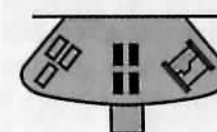
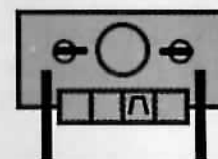


Settings

The back carriage :

- Key 
- Needle return buttons in neutral position
- Jacquard key cancelled

Front needle bed in upper position




Knitting

- All stitches must be placed on the back bed.
- Set the centre of the cursor stop opposite to the 15th needle after the last working needle.
- Push the cursor fully against the left-hand cursor stop.

Multicoloured tuck stitches ...

Knitting type : FANCY PATTERN

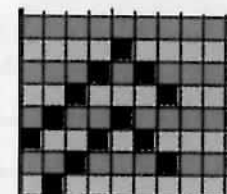
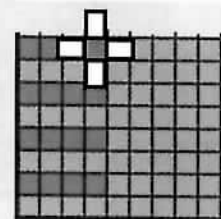
All coloured squares correspond to selected needles which are building stitches (stocking stitch). The changing of the colours must be done every 2, 4 or 6 rows. The black squares correspond to non-selected needles which are in relation with the settings of the carriages. Tuck stitches : key 

Personal creation

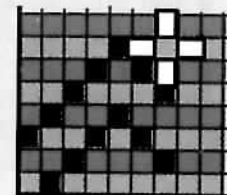
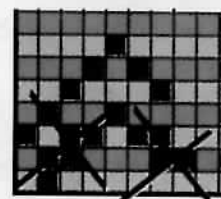
The patterns must be prepared with one colour as main yarn, or with several colours. Always use the black colour to create or modify a pattern.

- Start by creating the striped lines.
- Use function "ALL-OVER PATTERN" to obtain the different coloured stripes across the width.
- Create the pattern with a black colour.
- **Never programme two black squares next to each other.**
- You must use function "DOUBLE ROWS" to obtain stripes with an even number of lines and an even number of tuck stitches on the same needle.
- **Caution** : The number of tuck stitches on a same needle, i.e. the number of squares placed on top of the other, depends on the thickness of the selected yarn. It is advisable to knit a sample with the selected yarn.

ALL-OVER PATTERN





DOUBLE ROWS

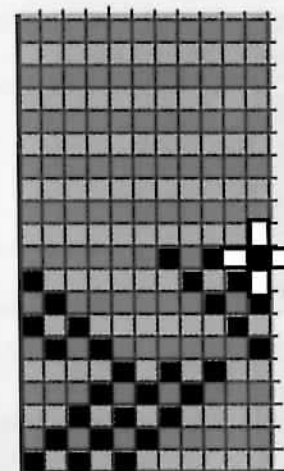


continued

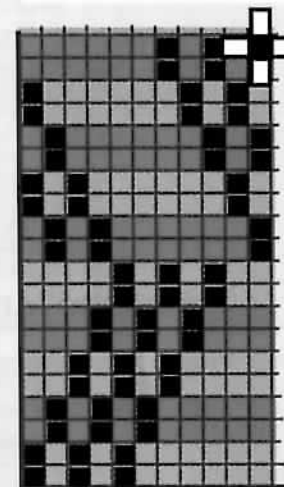
Patterns from the catalogue : N° 481 to 492

- On the disk, the patterns are memorized on a single row sequence.
- The samples shown in the catalogue are knitted on a double row sequence.
- According to the selected yarn and the required effect, you can double the tuck stitches by using function "DOUBLE ROWS".
- The pointer  of function "DOUBLE ROWS" is always placed in the top right-hand corner of the pattern.
- To repeat the pattern :
The pointer  of function "ALL-OVER PATTERN" is always placed in the top right-hand corner of the pattern.

DOUBLE ROWS




ALL-OVER PATTERN

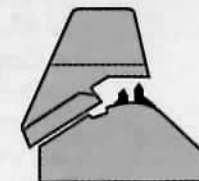
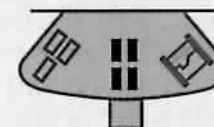
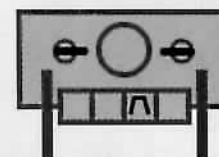


Settings


The back carriage :

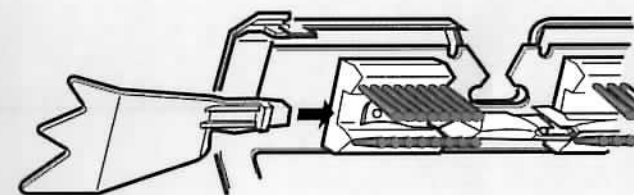
- Key 
- Needle return buttons in neutral position
- Jacquard key cancelled

Front needle bed in upper position



Knitting

- All stitches must be placed on the back bed. Your carriage must be on the left-hand side.
- Place the centre of the cursor stop opposite to the 15th needle after the last working needle.
- Push the cursor fully against the left-hand cursor stop.
- Set the Jacquard claw to the left-hand side of the carriage, marks and stud  on top, into the spring located between the left-hand brush of the handle.
- Knit changing colour as indicated on the monitor.



Long stitch effect ...

Type of knitting : LACE PATTERN

The patterns must be prepared with one colour as main yarn, or with several colours if they are placed in horizontal stripes.

Always use a black colour to create or modify a pattern.

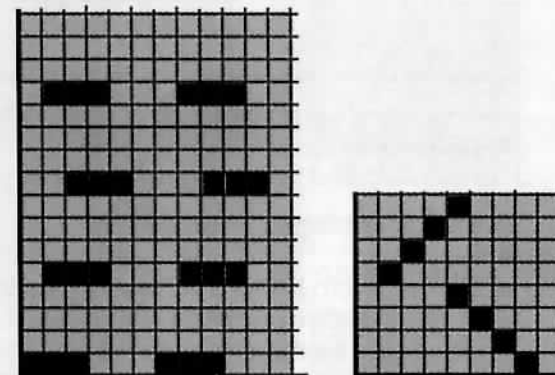
Personal creation

The patterns must be prepared with one colour as main yarn, or with several colours if they are placed in horizontal stripes.

Always use a black colour to create or modify a pattern.


- Select a colour as main yarn.
- Determine the rhythm of the transfers, i.e. every 3,4,5, or 6 rows according to the required effect.
- Always create the pattern with a black colour.
- **Caution** : the more lines are placed on top of the other without transfer, the longer the loop (tuck stitch) built across the selected needles will be. It is advisable to knit a sample with the selected yarn.
- If you wish to create different coloured stripes, use function "PLACE ORIGIN". Select the new colour and use function "ERASE DRAWING". Always use a black colour to create your patterns.

Examples of patterns with transfer every 4 rows

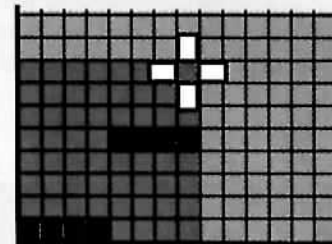


continued

Patterns from the catalogue : N° 711 to 734

- The patterns N° 711 à N° 722 are knitted with a transfer every 6 rows.
- The patterns N° 723 à N° 734, are knitted with a transfer every 4 rows.
- The colour selected as background must be colour -1.
- To repeat the pattern :
The pointer  of function "ALL-OVER PATTERN" is always placed in the top right-hand corner of the pattern (the lines without black squares are part of the pattern).

ALL-OVER PATTERN



Settings

The back carriage :

- Key 
- Needle return buttons in neutral position
- Jacquard key cancelled

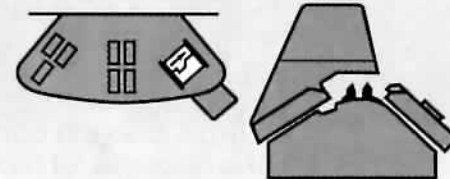
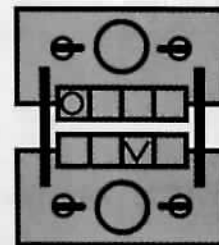
Stitch size : as for stocking stitch or bigger according to the number of rows knitted between each transfer of stitches.

The front carriage :

- Key 
- Needle return buttons in neutral position
- Jacquard key cancelled

Stitch size : as for stocking stitch

Front needle bed in normal position



Knitting

- All stitches must be placed on the front bed. On the back bed, move into working position 1 the empty needles found opposite to the front needles carrying stitches.
- Place the centre of the cursor stop opposite to the 15th needle after the last working needle.
- Push the cursor fully against the left-hand cursor stop.
- Every 4 or 6 rows, according to the selected pattern, transfer the stitches by means of the transfer carriage from left to right, arrow found on the back bed.

Lace patterns ...

Type of knitting : LACE PATTERN

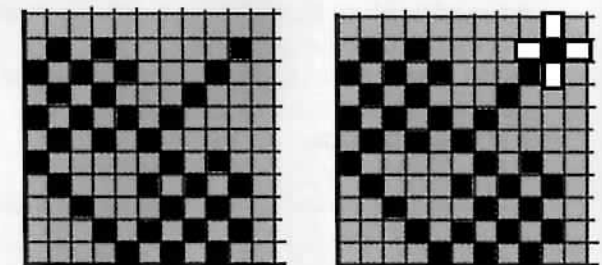
The black squares correspond to the needles selected on the back bed to build stitches. These stitches will be transferred onto the front bed and build the lace pattern.
The coloured squares correspond to the non-selected needles.

Personal creation

The patterns must be prepared with one colour as main yarn, or with several colours if they are placed in horizontal stripes.



Always use a black colour to create or modify a pattern.

- Select a colour as main yarn.
- Always create a pattern in a black colour and in single row sequence.
- The diagrams for tuck patterns can be used to knit lace patterns.
- Use function "DOUBLE ROWS" to get an even number of black squares on top of the other.
To get an uneven number of black squares placed on top of the other, it is necessary to create all squares one after the other.
- **Caution** : The number of black squares you can programme on top of the other depends on the thickness of the selected yarn. It is advisable to knit a sample with the selected yarn.
- If you wish to create different coloured bands, use function "PLACE ORIGIN". Select the new colour and use function "ERASE DRAWING". Always use a black colour to create your patterns.



continued ...

Patterns from the catalogue : N° 397 to 480 - 495 to 498 - 501 to 524

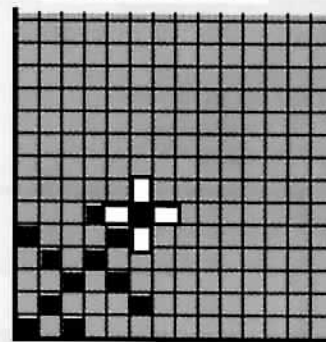
- On the disk, the patterns are memorized on a single row sequence.
- The samples shown in the catalogue are knitted on a double row sequence with a transfer every 2 rows.
- According to the selected yarn and the required effect, you can double the pattern by using function "DOUBLE ROWS". The method of knitting is then different.
- The pointer  of function "DOUBLE ROWS" is always placed in the top right-hand corner of the pattern.
- To repeat the pattern :
The pointer  of function "ALL-OVER PATTERN" is always placed in the top right-hand corner of the pattern.

Patterns N° 495 to 498 and N° 501 to 512 are single designs.

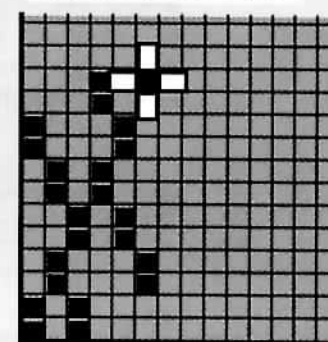
Specific cases : Patterns N° 513 to 524

- These patterns are memorized on a single row sequence and are knitted as such with a transfer every 2 rows.

DOUBLE ROWS




ALL-OVER PATTERN



continued ...

Settings : Patterns with transfer every 2 rows

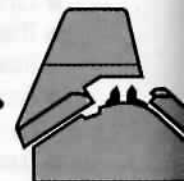
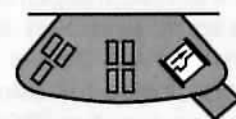
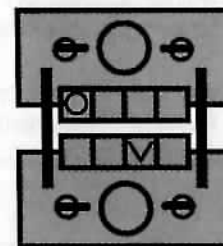
The back carriage :

- Key 
- Needle return buttons in neutral position
- Jacquard key cancelled

The front carriage :

- Key 
- Needle return buttons in neutral position
- Jacquard key cancelled

front needle bed in normal position



Knitting : Patterns with transfer every 2 rows

- All stitches must be placed on the front bed. On the back bed, move into working position 1 the empty needles found opposite to the front needles carrying stitches.
- Place the centre of the cursor stop opposite to the 15th needle after the last working needle.
- Push the cursor fully against the left-hand cursor stop.
- Every 2 rows, according to the selected pattern, transfer the stitches by means of the transfer carriage from left to right, arrow found on the back bed.


continued ...

Settings : Patterns with transfer after more than 2 rows

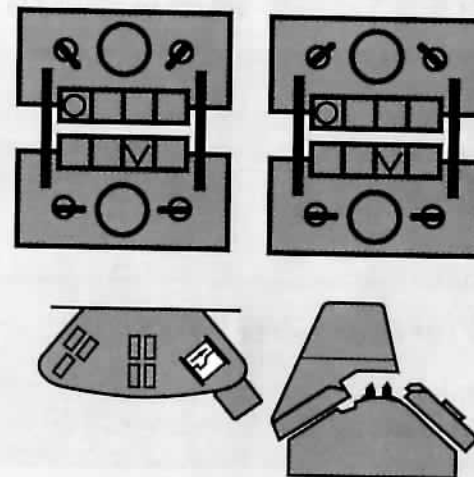
The back carriage :

- Key 
- Needle return buttons first in upper position, then in lower position
- Jacquard key cancelled

The front carriage :

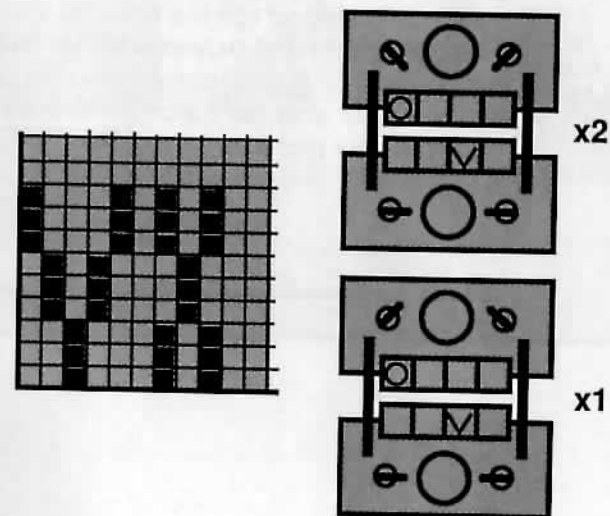
- Key 
- Needle return buttons in neutral position
- Jacquard key cancelled

Front needle bed in normal position



Knitting : Patterns with transfer after more than 2 rows


- All stitches must be placed on the front bed. On the back bed, move into working position 1 the empty needles found opposite to the front needles carrying stitches.
- Place the centre of the cursor stop opposite to the 15th needle after the last working needle.
- Push the cursor fully against the left-hand cursor stop.
- Knit the number of rows corresponding to the number of black squares placed on top of the other less one row, with needle return buttons set in upper position.
- Knit one row with needle return buttons set in lower position.
- Transfer the stitches by means of the transfer carriage from left to right, arrow found on the back bed.



Pin tuck stitches ...

Type of knitting : FANCY PATTERN

All coloured squares correspond to selected needles which build stitches (stocking stitch).

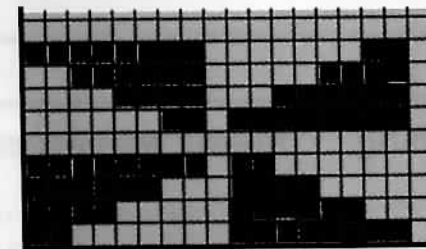
The black squares correspond to non-selected needles which are in relation with the settings of the carriage. Pin Tuck Stitches : key 

Personal creation

The patterns must be prepared with one colour as main yarn, or with several colours if they are placed in horizontal stripes.

Always use a black colour to create or modify the pattern.

- Select a colour as main yarn.
- Always create the pattern in a black colour.
- The number of black squares placed on top of the other correspond to the number of rows during which the needles will not knit. It depends on the thickness of the selected yarn. It is advisable to knit a sample with the selected yarn.
- If you wish to knit different coloured bands, use function "PLACE ORIGIN". Select the new colour and use function "ERASE DRAWING". Always use a black colour to create your patterns.

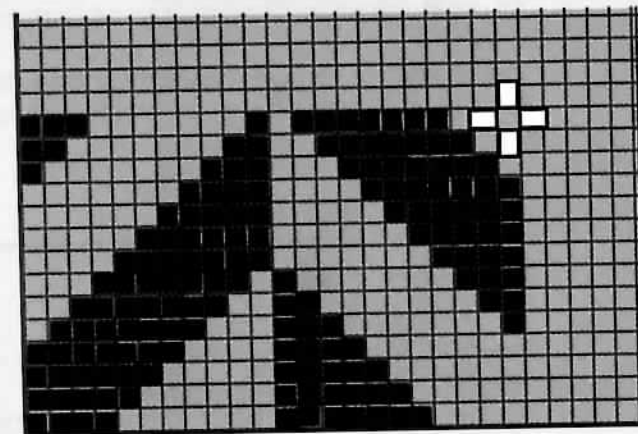


continued

Patterns from the catalogue : N° 735 to 770


- To repeat the pattern :
The pointer  of function "ALL-OVER PATTERN" is always placed in the top right-hand corner of the pattern.

ALL-OVER PATTERN




Settings

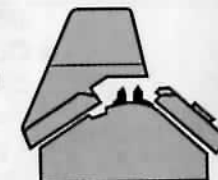
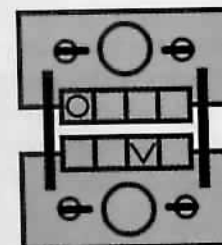
The back carriage :

- Key 
- Needle return buttons in neutral position
- Jacquard key cancelled

The front carriage :

- Key 
- Needle return buttons in neutral position
- Jacquard key cancelled

Front needle bed in normal position



Knitting

- You must be in Close Rib (Every Needle Rib).
- Place the centre of the cursor stop opposite to the 15th needle after the last working needle.
- Push the cursor fully against the left-hand cursor stop.

Slip stitches ...

Type of knitting : FANCY PATTERN

All coloured squares correspond to selected needles which build stitches (stocking stitch).

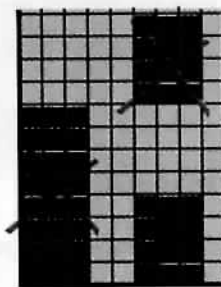
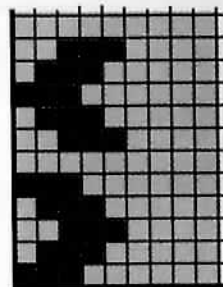
The black squares correspond to non-selected needles which are in relation with the settings of the carriages. Slip stitches : key 

Personal creation

The patterns must be prepared with one colour as main yarn, or with several colours if they are placed in horizontal stripes.



Always use a black colour to create or modify the pattern.

- Select a colour as main yarn.
- Always create the pattern with a black colour.
- The number of black squares placed next to each other correspond to the number of stitches which are not knitted, thus determining the length of the slip stitch.
- **Caution** : Do not programme patterns with too many black squares on top of the other as the needles would remain too long without knitting.. This depends on the thickness of the selected yarn. It is advisable to knit a sample with the selected yarn.
- If you wish to create different coloured bands, use function "PLACE ORIGIN". Select the new colour and use function "ERASE DRAWING". Always use a black colour to create your patterns.

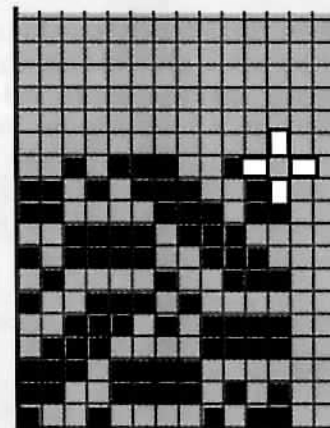


continued

Patterns from the catalogue ; N° 525 to 620


- On the disk, the patterns are memorized on a single row sequence.
- The samples shown in the catalogue are knitted on a single row sequence.
- According to the selected yarn or the required effect, you can double / repeat the slip stitches by using function "DOUBLE ROWS".
- The pointer  of function "DOUBLE ROWS" is always placed in the top right-hand corner of the pattern.
- To repeat the pattern :
The pointer  of function "ALL-OVER PATTERN" is always placed in the top right-hand corner of the pattern.

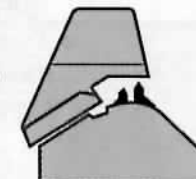
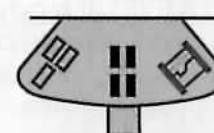
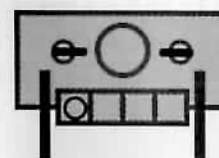
ALL-OVER PATTERN



Settings

The back carriage :

- Key 
 - Needle return buttons in neutral position
 - Jacquard key cancelled
- Front needle bed in upper position**




Knitting

- All stitches must be placed on the back bed.
- Place the centre of the cursor stop opposite to the 15th needle after the last working needle.
- Push the cursor fully against the left-hand cursor stop.

Weaving effect ...

Type of knitting : FANCY PATTERN

The Weaving Effect allows to use thick knitting yarns. This knitting technique is done with two yarns, one for knitting and the other for the weaving effect.

The black squares correspond to the non-selected needles which are in relation with the settings of the carriages. Weaving Effect : key . The thick yarn passes under these needles.

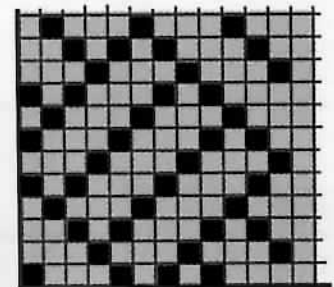
All coloured squares correspond to the selected needles which build stitches. The thick yarn passes under these needles.

Personal creation

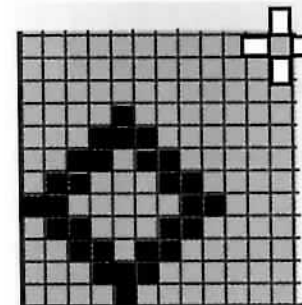
The patterns must be prepared with one colour as main yarn, or with several colours if they are placed in horizontal stripes.

Always use a black colour to create or modify the pattern.

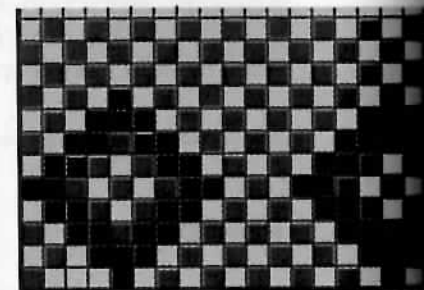
- Select a colour as main yarn.
- Always create the pattern with a black colour.
- When you create a pattern with large one-coloured sections, programme function "BIRD'S EYE". It is advisable to knit a sample with the selected yarn.
- If you wish to create different coloured bands, use function "PLACE ORIGIN". Select the new colour and use function "ERASE DRAWING". Always use a black colour to create your patterns.



ALL-OVER PATTERN



BIRD'S EYE

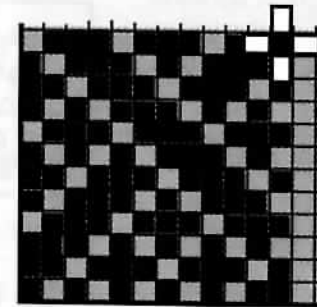


continued ...

Patterns from the catalogue : N° 771 to 830


- To repeat the pattern :
The pointer  of function "ALL-OVER PATTERN" is always placed in the top right-hand corner of the pattern.

ALL-OVER PATTERN

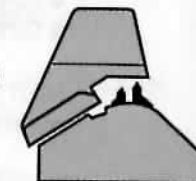
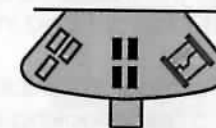
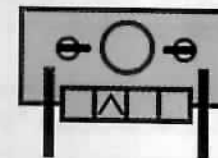


Settings

The back carriage :

- Key 
- Needle return buttons in neutral position
- Jacquard key cancelled

Front needle bed in upper position



continued

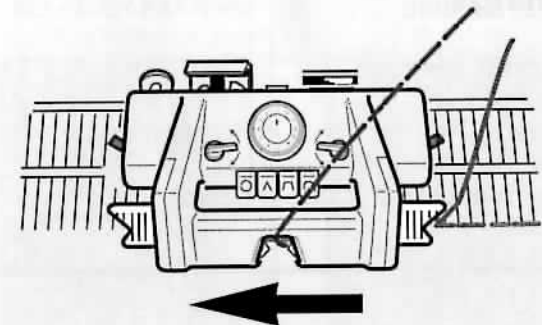
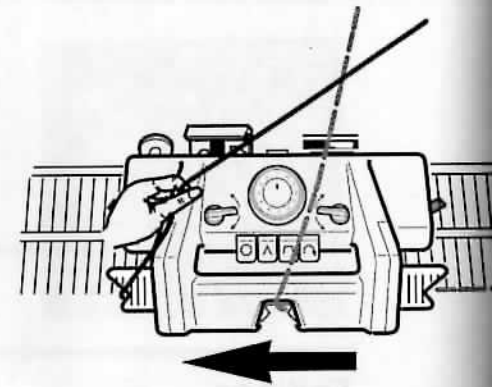
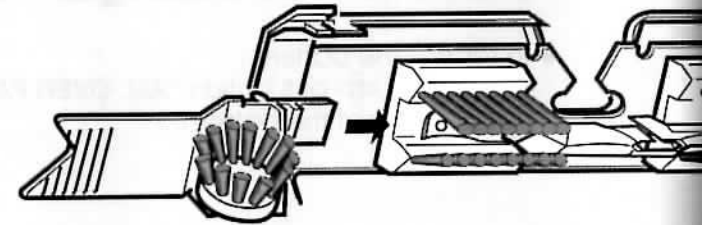
Knitting :

- All stitches must be placed on the back bed.
- Set the centre of the cursor stop opposite to the 8th needle after the last working needle.
- Push the cursor fully against the left-hand cursor stop.
- Use the locking levers to move the back carriage away from the needle bed in order to fit the "weaving effect brushes". Their round brushes are facing you. One brush is at the right side and the other at the left side.
- Use a fine yarn for knitting. It must be threaded through the left-hand side of the tension unit.
- Thread the right-hand side of the tension unit with the thick yarn. Set the tension unit on 1.
- The thick yarn must always be ahead of the main yarn when you knit. It must be free in order to avoid it knitted together with the thin yarn.
- When knitting, as soon as the middle of the carriage reaches the last working needle, pull the thick yarn towards you. Push the carriage to finish the row. Release the thick yarn.
- Continue to knit in this way taking care to pull the thick yarn towards you in time. To get nice edges, move at each row, on the carriage side, the second needle into position 2.

If you have forgotten to pull the thick yarn :

- Lower the front bed and pull the yarn towards you.
- Reset the front bed into upper position.

HINT : To allow the thick yarn to pass easily through the tension unit, do not thread the metallic guide looking like an upside-down "V".



Stitch size chart

This chart is given for information only.

The stitch size can be changed according to your own taste and to the texture or the type of the knitting yarn.

How to read the stitch size chart
Refer to this chart for the various settings to be made on the machine to knit the fancy patterns.

Symbols of the chart



Thickness of the yarn in relation to the size of hand knitting needles. This is indicated on the paper label on each ball of yarn.



Stitch size



Needle bed space (space selector)



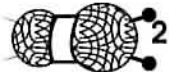
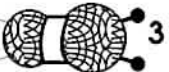

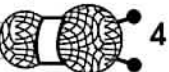






















































Front bed in upper position



Front bed in normal position



Position of the intermediary lever

	US 0.1 2  2 1/2 UK 14.13					US 1.3 2 1/2  3 UK 13.11					US 3.4 3  3 1/2 UK 11.9					US 4.6 3 1/2  4 UK 9.8				
																				
Tuck stitches	5	5	●			6	5	●			8	5	●							
Slip stitches	5	5	●			6	5	●			8	5	●			10	3		●	
Pin tuck stitches	4	5		●		5	5		●											
Long stitch effect	5	5		●		6	5		●		8	5		●						
Lace pattern	$\frac{1}{5}$	5		●		$\frac{1}{6}$	5		●		$\frac{1}{8}$	5		●						
Fair Isle	6	3		●		7	3		●		9	4		●		11	4		●	
Fancy Jacquard	$\frac{2}{2 1/2}$	5		●		$\frac{3}{3 1/2}$	5		●		$\frac{4}{4 1/2}$	5		●		$\frac{5}{5 1/2}$	5		●	
Reversible Jacquard	$\frac{3}{5}$	4		●																
Jacquard with long stitch effect	$\frac{5}{6}$	5		●																
Jacquard	3	5		●		4	5		●		5	5		●						
Norwegian Jacquard	3	4		●		4	4		●		5	4		●		6	4		●	
Weaving effect	5	6	●			6	6	●												

Intarsia

Type of knitting : TWO-COLOUR FAIR ISLE / JACQUARD

Intarsia is knitted by using an optional accessory INTARSIA CARRIAGE.
The different coloured yarns are laid manually onto the needles, at each row.

Personal creation

- Select a colour as main yarn.
- Create your pattern with as many colours on a same row as you wish.

Patterns from the catalogue : N° 852 to 869

- On the disk, the patterns are memorized on single row sequence.
- The samples shown in the catalogue are knitted on double row sequence.

Knitting

- Refer to the instructions in "KNITTING", under section "Knitting the Intarsia pattern" on page 82.

Fancy garter stitches


Type of knitting : FANCY PATTERN

Fancy Garter stitches are knitted by using an optional accessory called GARTER CARRIAGE.

The coloured squares correspond to needles selected on the back bed to build stitches.

The black squares correspond to non-selected needles.

Patterns from the catalogue : N° 831 to 851

- The colour selected as background must be colour 1.
- To repeat the pattern :
The pointer  of function "ALL-OVER PATTERN" is always placed in the top right-hand corner of the pattern.

Knitting

- Refer to the instructions in the booklet provided with the Garter Carriage.

Cables ...


Patterns from the catalogue : N° 870 to 885

Cables are manual patterns which are obtained by crossing stitches by means of transfer tools of 1, 2, 3 or 6 eyelets.

- The width of the cables vary according to the number of stitches to be crossed.
- You get a different effect according to the method of crossing the stitches.

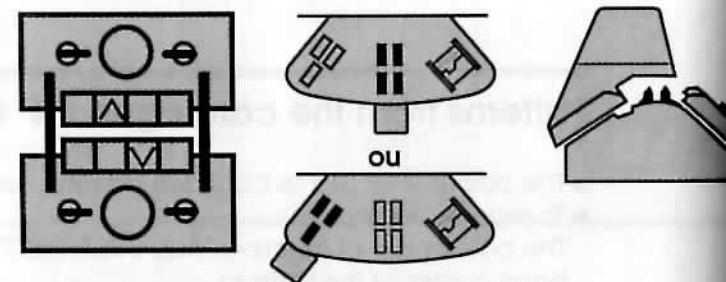
Settings

The back carriage :

- Key 
- Needle return buttons in neutral position.
- Jacquard key cancelled.

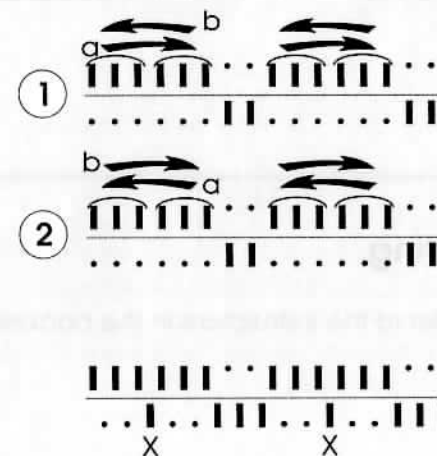
The front carriage :

- Key 
- Needle return buttons in neutral position.
- Jacquard key cancelled.



Knitting

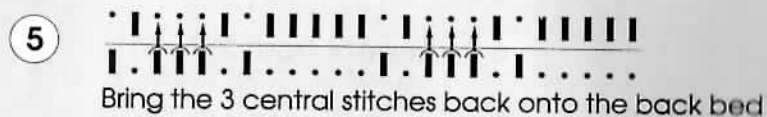
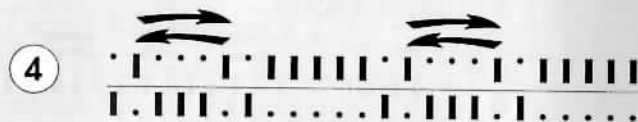
- Set the needles as shown on the sketches.
- Knit the number of rows as indicated.
- Cross the stitches taking care to respect the way of crossing as shown on the sketches. Put the stitches A onto the needles and stitches B.
- 1) Cross the stitches by passing the right-hand stitches behind the left-hand stitches.
- 2) Cross the stitches by passing the right-hand stitches in front of the left-hand stitches.
- To make the crossing of the stitches easier, bring to working position 1 the needles marked (x) at the row preceeding the crossing of the stitches. Knit the row. Release the loops which were built and lower the needles (x) to non-working position 0.
- To make the passage of the carriage easier, bring the needles carrying the cable stitches into working position 2 (stitches behind the latches).



Pattern N° 870



② Knit 4 rows



⑥ Repeat from 2) to 5) but alternating the pattern groups

⑦ Repeat from 2) to 6)

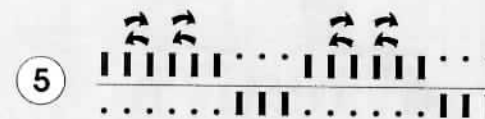
Pattern N° 871



② Knit 2 rows

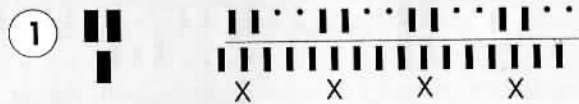


④ Knit 2 rows



⑥ Repeat from 2) to 5)

Pattern N° 872



② Knit 6 rows



④ Knit 4 rows

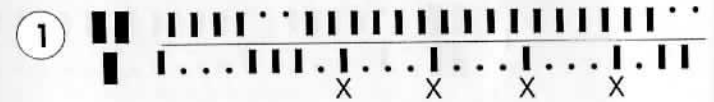


⑥ Knit 10 rows

⑦ Repeat from 3) to 6) but alternating

⑧ Repeat from 3) to 7)

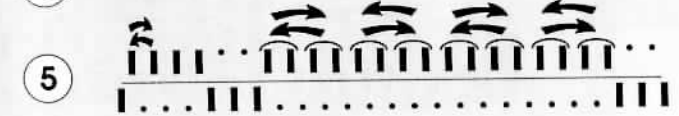
Pattern N° 873



② Knit 4 rows

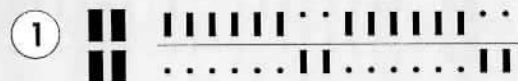


④ Knit 4 rows

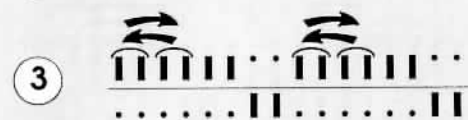


⑥ Repeat from 2) to 5)

Pattern N° 874



② Knit 4 rows

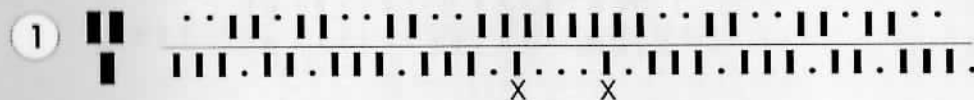


④ Knit 4 rows

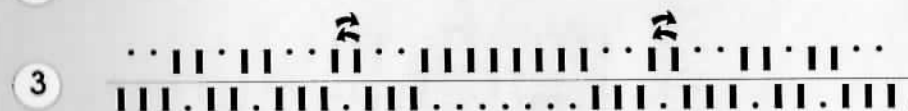


⑥ Repeat from 2) to 5)

Pattern N° 875

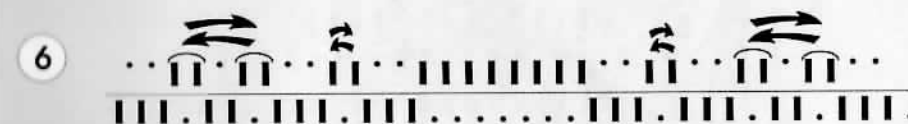


② Knit 2 rows



④ Repeat from 2) to 3)

⑤ Knit 2 rows



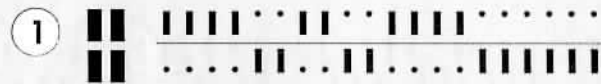
⑦ Knit 2 rows



⑨ Repeat from 5) to 6)

⑩ Repeat from 2) to 9)

Pattern N° 876



② Knit 2 rows

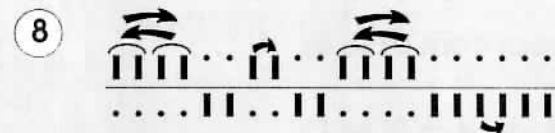


④ Knit 2 rows



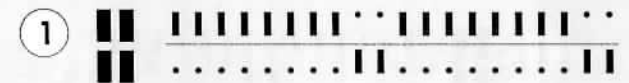
⑥ Repeat twice from 2) to 5)

⑦ Repeat once from 2) to 4)



⑨ Repeat from 2) to 8)

Pattern N° 877



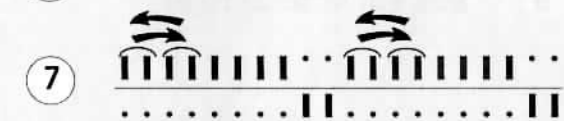
② Knit 3 rows



④ Knit 3 rows



⑥ Knit 3 rows

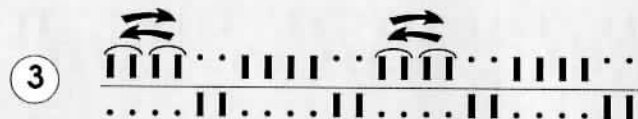


⑧ Repeat from 2) to 7)

Pattern N° 878



② Knit 4 rows

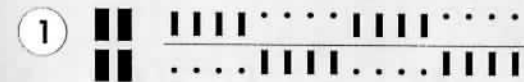


④ Knit 4 rows



⑧ Repeat from 2) to 5)

Pattern N° 879



② Knit 1 row



Transfer the stitches onto the right- or left-hand needle. Leave the empty needle in working position 1.

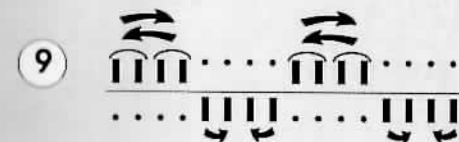
④ Knit 1 row



⑥ Repeat once from 2) to 5)

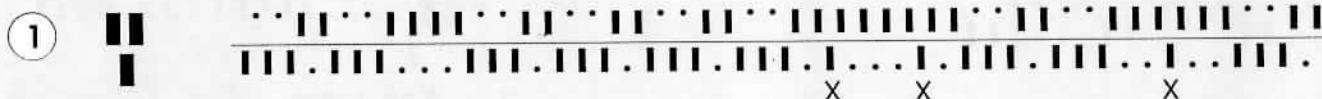
⑦ Repeat once from 2) to 3)

⑧ Knit one row

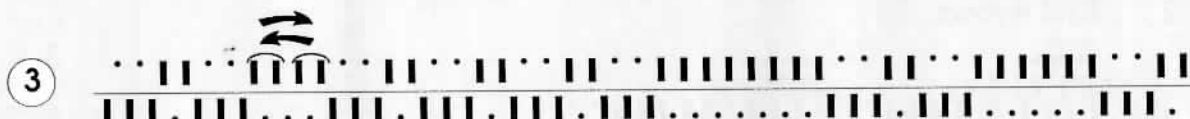


⑩ Repeat from 2) to 9)

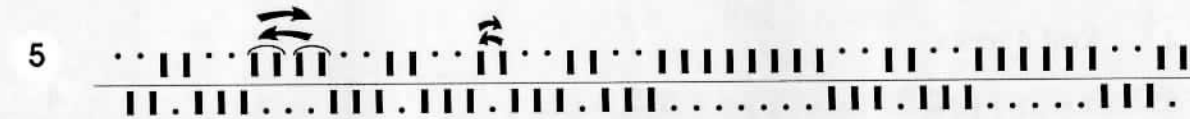
Pattern N° 880



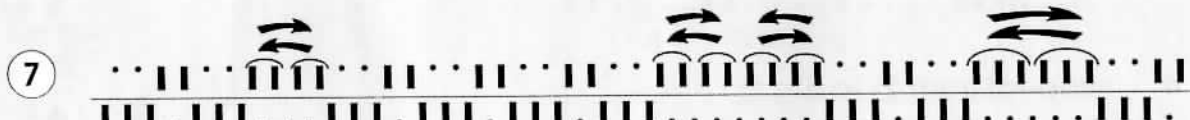
② Knit 2 rows



④ Knit 2 rows



⑥ Knit 2 rows



⑧ Repeat from 4) to 5)

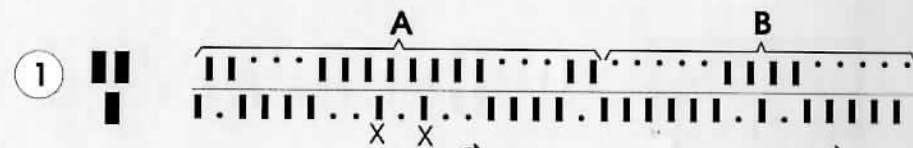
⑨ Repeat from 2) to 3)

⑩ Knit 2 rows



⑫ Repeat from 2) to 11)

Pattern N° 881



② Knit 2 rows

④ Knit 2 rows

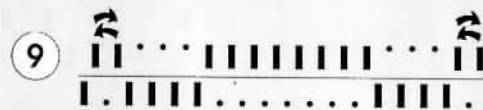
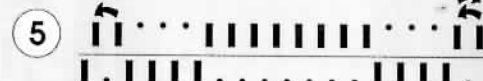
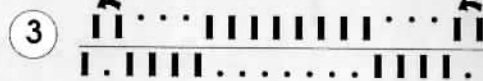
⑥ Knit 2 rows

⑧ Knit 2 rows

⑩ Knit 2 rows

⑫ Knit 2 rows

⑭ Repeat from 2) to 13) for the needles A



② Knit 2 rows

④ Knit 2 rows

⑥ Knit 2 rows

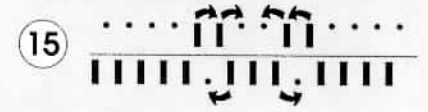
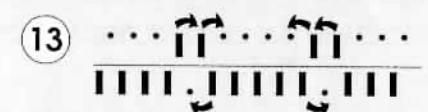
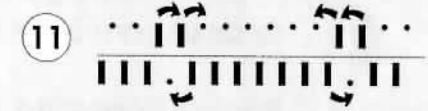
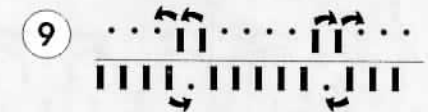
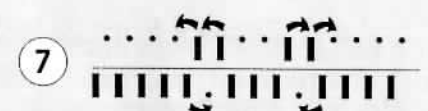
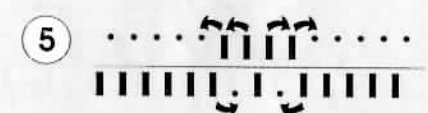
⑧ Knit 2 rows

⑩ Knit 2 rows

⑫ Knit 2 rows

⑭ Knit 2 rows

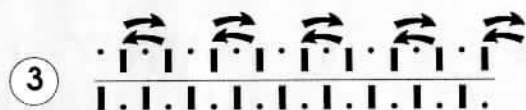
⑯ Repeat from 2) to 15) for the needles B



Pattern N° 882



② Knit 2 rows



④ Repeat from 2) to 3)

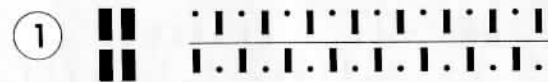
⑤ Knit 2 rows



⑦ Repeat from 5) to 6)

⑧ Repeat from 2) to 7)

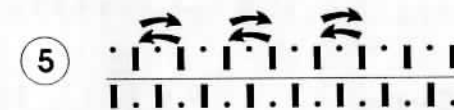
Pattern N° 883



② Knit 2 rows



④ Knit 2 rows



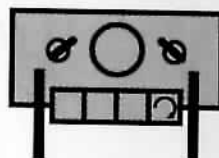
⑥ Repeat from 2) to 5)

⑦ Knit 4 rows

⑧ Repeat from 2) to 7)

Pattern N° 884

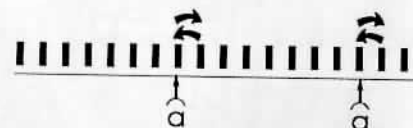
①



②

Carriage to left-hand side. Knit 1 row.

③



Cross the stitches.
Move all needles except needles A into working position 3.

④

Knit 2 rows

⑤

Repeat 7 times from 3) to 4) but shifting each time one needle towards the left-hand side when crossing the stitches.

⑥

Repeat from 3) to 5)

Pattern N° 885

①



②

Knit 1 row

③



④

Repeat 3 times from 2) to 3) but shifting each time one needle towards the right-hand side when crossing the stitches.

⑤

Knit 1 row

⑥



⑦

Repeat 3 times from 5) to 6) but shifting each time one needle towards the left-hand side when crossing the stitches.

⑧

Repeat from 2) to 7)

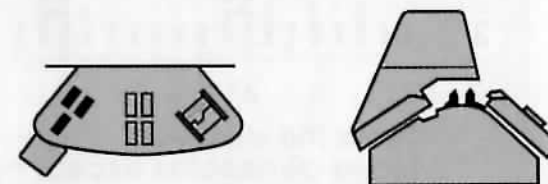
Racking patterns

Patterns from the catalogue : N° 886 à 901

Settings

The settings of the carriages vary according to the pattern.

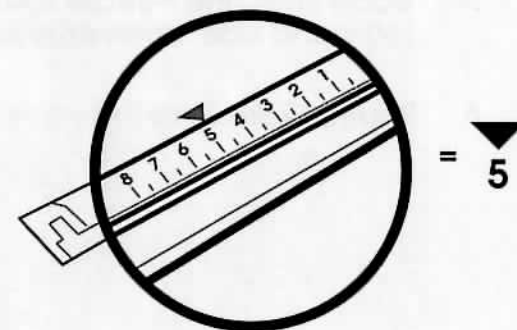
- The flow combs must always be alternate.
- The front bed must always be in normal position.



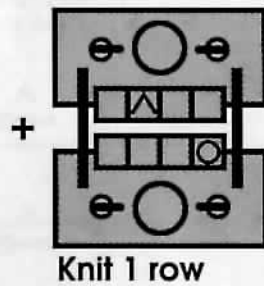
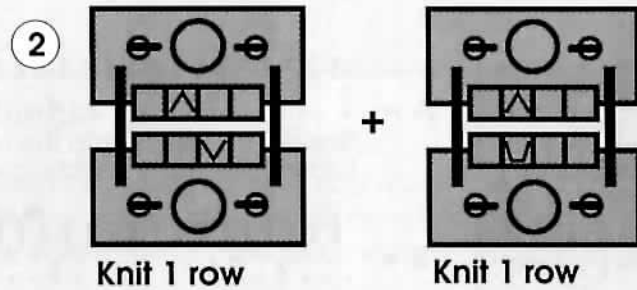
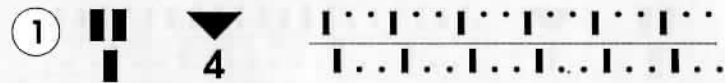
Knitting

The rackings to be done are indicated as you knit by the numbers opposite to which the racking index has to be placed by moving the racking lever.

- Set the needles as shown on the sketch (1).
- Set the carriages and knit the number of rows indicated between each racking (2).

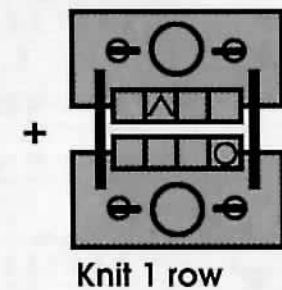
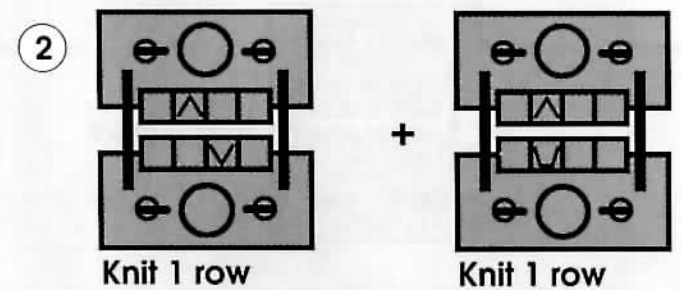
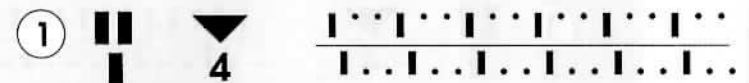


Pattern N° 888



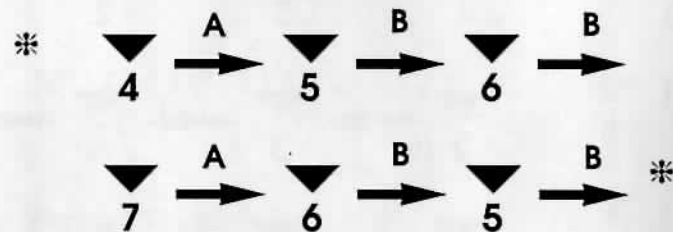
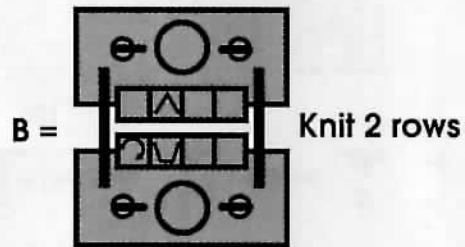
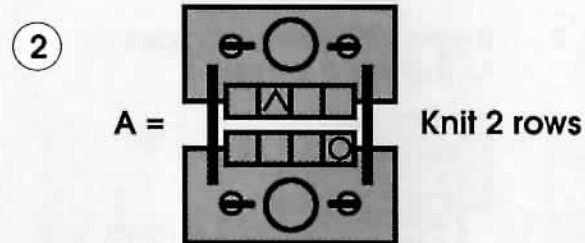
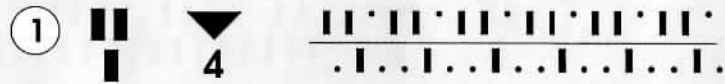
Repeat from * to *

Pattern N° 889



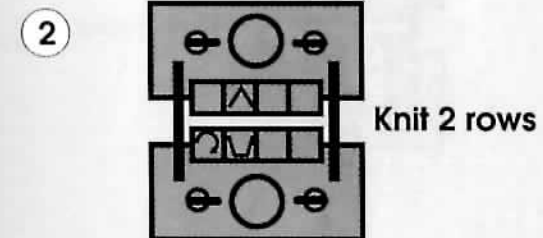
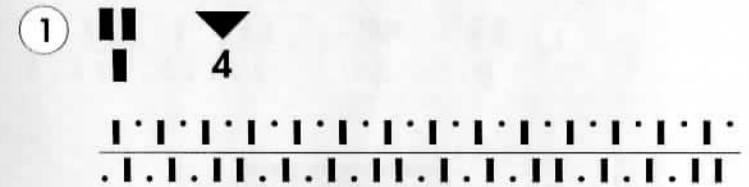
Repeat from * to *

Pattern N° 890



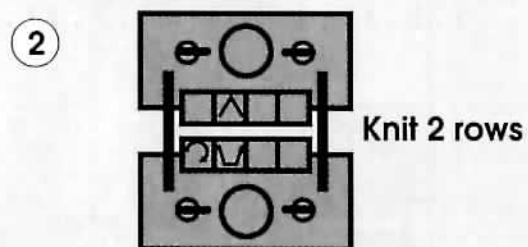
Repeat from * to *

Pattern N° 891



Repeat from * to *

Pattern N° 892

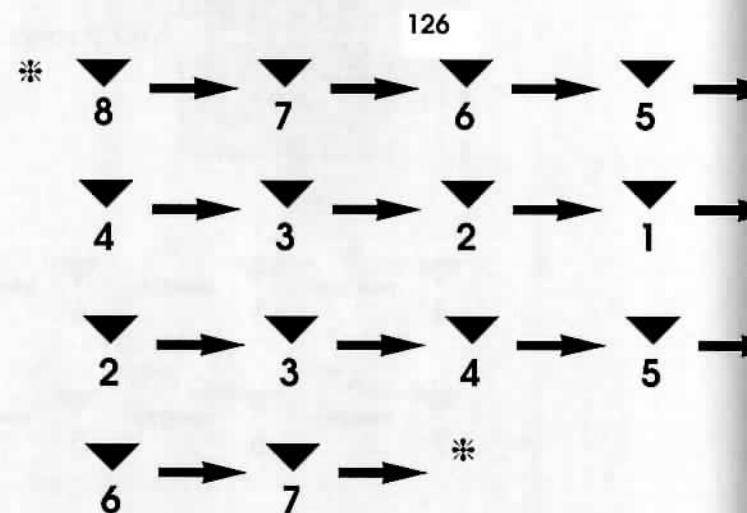
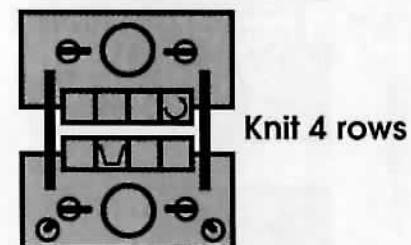


Repeat from * to *

Pattern N° 893

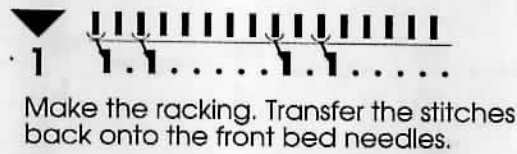
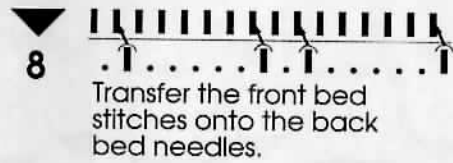
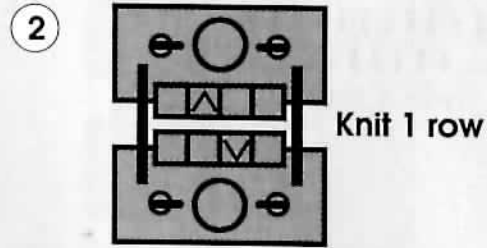
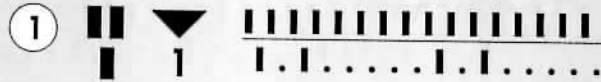


② Begin with the carriages to the left-hand side

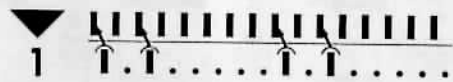


Repeat from * to *

Pattern N° 894



Repeat from * to *

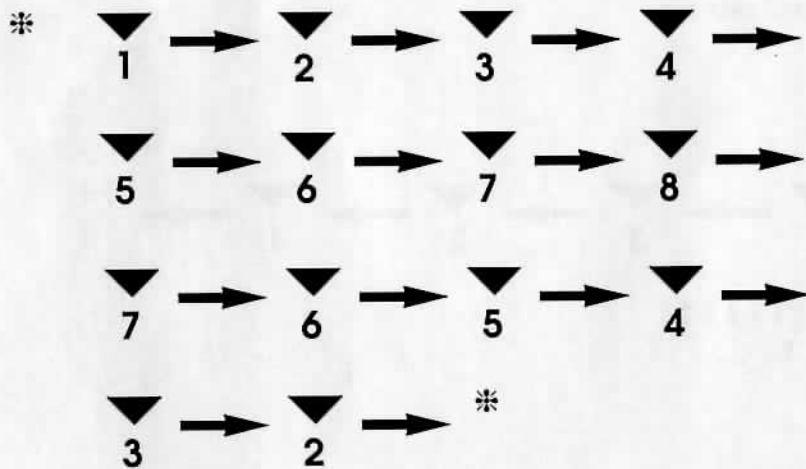
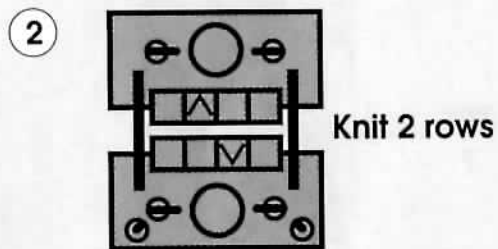
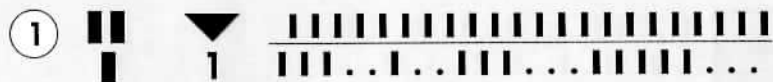


Repeat from ** to **



Repeat from * to **

Pattern N° 895

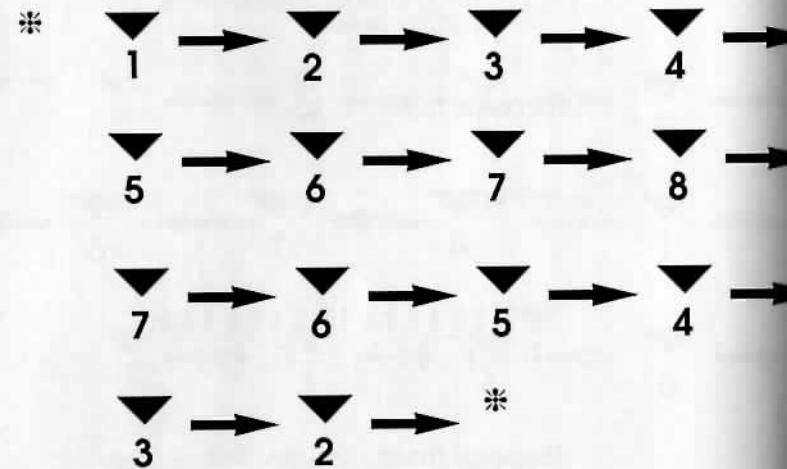
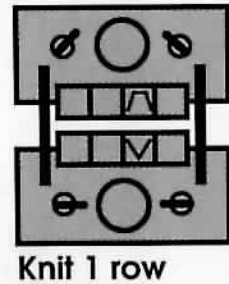


Repeat from * to *

Pattern N° 897

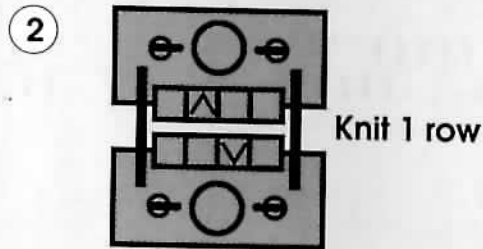
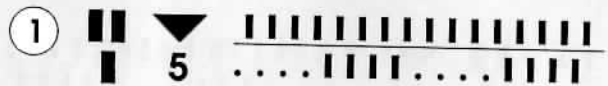


② On the back bed, move every other needle into holding position 3, alternating the sequence every row.



Repeat from * to *

Pattern N° 896



* 5 Knit 4 rows Transfer the front bed stitches onto the back bed needles. Leave the empty needles in working position 1.



Transfer the front bed stitches onto the back bed needles. Leave the empty needles in working position 1.

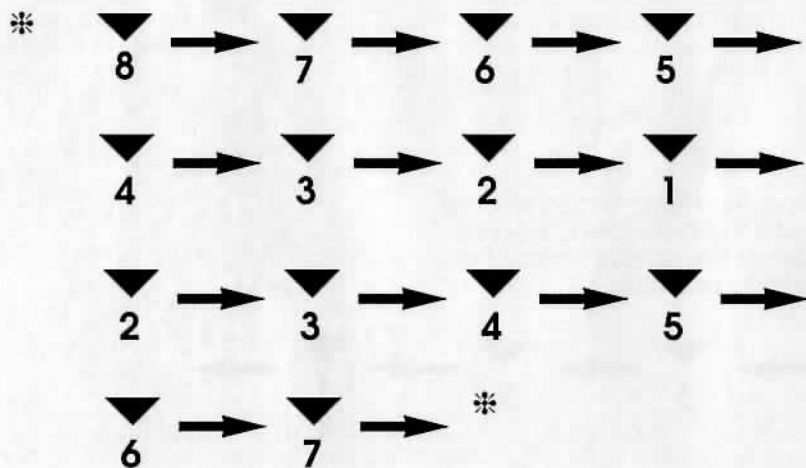
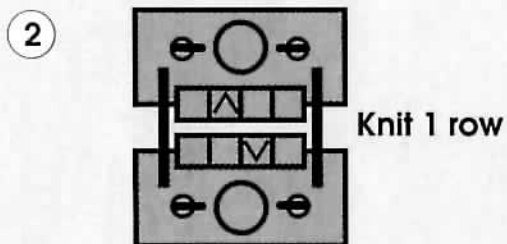
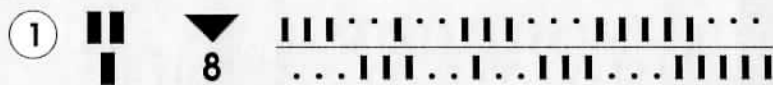
4 Tricoter 4 rangs Transfer the front bed stitches onto the back bed needles. Leave the empty needles in working position 1.



Transfer the front bed stitches onto the back bed needles. Leave the empty needles in working position 1. *

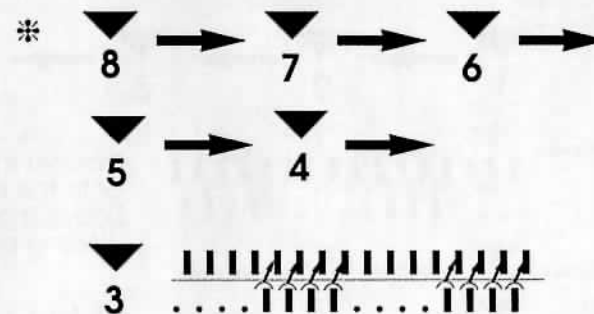
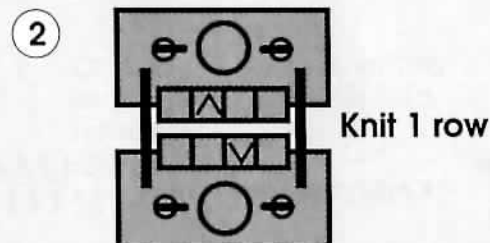
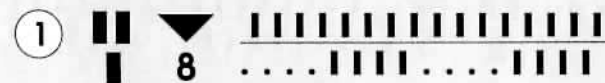
Repeat from * to *

Pattern N° 898



Repeat from * to *

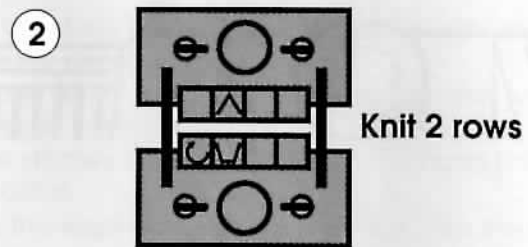
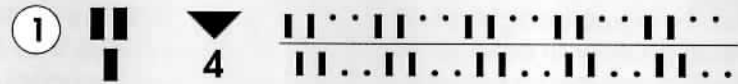
Pattern N° 899



Transfer the front bed stitches onto the back bed needles. Leave the empty needles in working position 1.

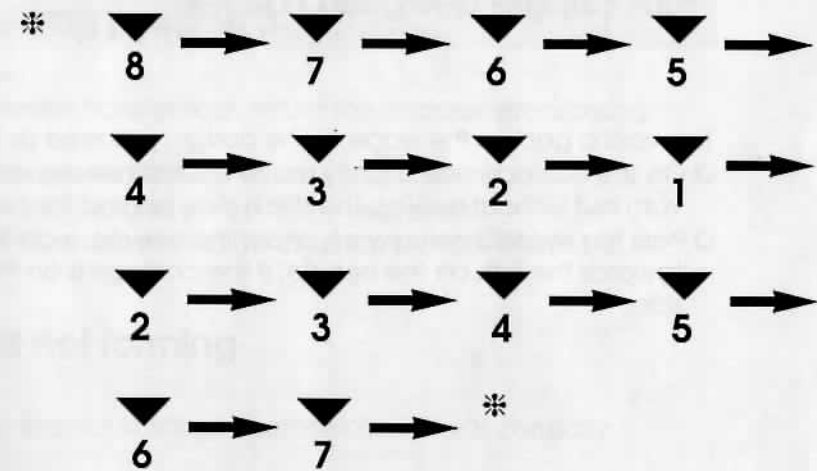
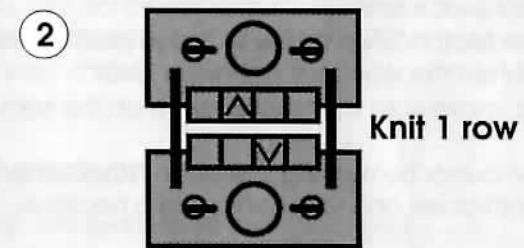
Repeat from * to *

Pattern N° 900



Repeat from * to *

Pattern N° 901

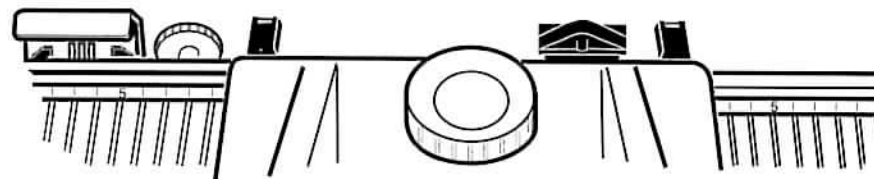


Repeat from * to *

Some hints — What to do if...

Hint : Cursor and cursor stops

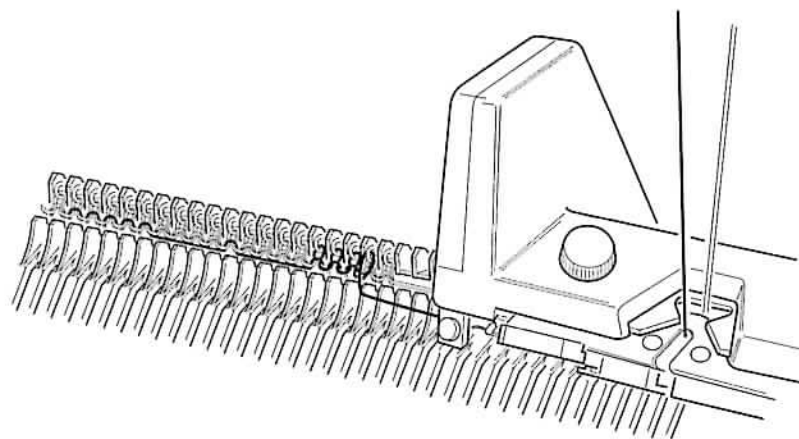
- ❑ Make sure that the carriage is moved far enough to clear the cursor at the cursor stop so that the cursor is always carried by the correct selector block foot.
- ❑ When using the Motor-Drive, make sure you position the stroke limits correctly to obtain the above-mentioned result.
- ❑ Before knitting, make sure that the cursor is on the same side as the carriage.
- ❑ Re-position the cursor by moving the cursor stops when increasing or decreasing stitches, and when shaping a neckline.



Hint : Single design in Fair Isle

To avoid a gap on the edge of the design, proceed as follows :

- ❑ On the carriage side, slightly move the first needle knitting in main yarn but without making the stitch slide behind the needle latch.
- ❑ Pass the second colour yarn under the needle, loop it back towards the left, on the needle, if the carriage is on the right-hand side.



Some hints — What to do if...

Hint : Needles in holding position

When knitting in Fair Isle or Jacquard, never bring needles into holding position 3 as they would automatically be recalled to working position 1 by the Jacquard key. Therefore, when shaping a neckline in Fair Isle or Jacquard, proceed according to one of the following four methods :

- Thread the double ended eyelet needle with an auxiliary yarn and remove the required stitches.
- On the section to be removed, knit some rows with an auxiliary yarn and release the knitting.
- Take the stitches to be removed onto a hand knitting needle or a stitch-holder.
- Transfer the required back bed stitches onto the opposite front bed needles.

When knitting in a Jacquard technique, use one of the first three methods.

- To knit the second side of the neckline, take care to replace the stitches onto the same original needles.

Hint : When dividing the knitting

- When dividing the knitting, a neckline for example, take a note of the pattern line shown on the indicator as well as the direction in which the pattern was going in order to knit the second side in the same way as the first one.
- For types of knitting other than Fair Isle or Jacquard, when knitting the second side, take care to rehang the stitches of the second side into the needle hooks.

Hint : Edge claws

- You must use the edge claw weights when knitting in Jacquard and in general as soon as it is necessary. Place one at each side of the knitting.

Hint : After knitting

- Turn off the electronic box.
- Unplug the power supply.
- Always remove the second yarn guide before taking the carriage across empty needles.
- As soon as they are no longer required, cancel the Jacquard keys and remove all accessories used when knitting fancy patterns.
- Always cover your knitting machine to protect it from dust.

You cannot cast-on

- Check that the Jacquard keys are cancelled.

The needles selected in Fair Isle or Jacquard remain in holding position 3

- Unpick one row.
- Using the one eyelet transfer tool, return the needles into working position 1.
- Replace the carriage to the side of the yarn.
- Check that the Jacquard key is correctly depressed.
- Using the key “-1”, return the indicator to the pattern line to be knitted.

The pattern is not forming

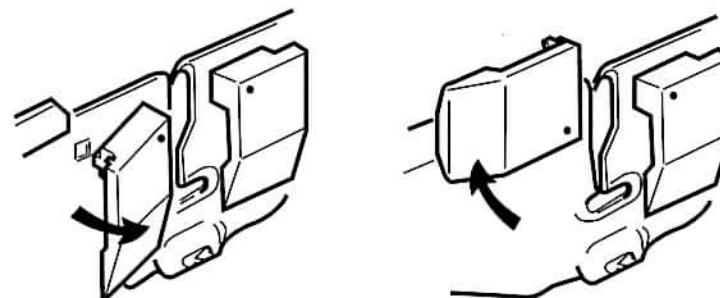
Check that :

- The connection lead of knitting machine-controller is correctly connected.
- The controller is in the **GO** position.
- The settings of the carriage correspond to the instructions given in the manual.
- The cursor stops are correctly positioned.

What to do if...

The carriage equipped with the second yarn guide jams on the needles

- Set the controller in the **STOP** position.
- If you use the Motor Drive, disconnect the engaging bolt from the carriage, press down the speed controller to move the drive guide of the Motor Drive away, to the end of the rail.
- Loosen the cursor stop that has just been passed by the carriage.
- Push it against the cursor, then push the cursor away, in the direction of knitting, to disconnect it from the carriage.
- If the second yarn guide is fastened to the carriage, you must disengage the needle raisers (pull and turn them out).
- Using the locking levers, unlock the carriage and bring it back to its starting point.
- Lock the carriage back to the rail.
- Unpick the stitches already knitted to bring the yarn back to the carriage side.
- If necessary, deduct this row from the row counter (see How to undo rows page 80).
- Replace and fasten the cursor stop at its initial position, on the carriage side.
- Bring all needles back to working position 1.
- Reset the controller in the **GO** position.



There are electro-static effects

- Your electronic controller is highly protected from harmful static electricity effects.
- However, if unfavourable circumstances are added to these effects, they can lead the picture to disappear on the monitor.
- In this case which is seldom, press the ON/OFF switch of the controller to cut the power. After a few seconds, six to seven, you may switch on the controller again.
- There is no risk for yourself, nor for the controller. Unfortunately, the information which were shown on the monitor are lost. Get used to save regularly on disks your work when creating something, even during this operation.

A tuck stitch or a slip stitch pattern is not forming correctly

If one or several needles carrying stitches, which have not knitted for some rows, do not knit normally after the needle selection changes, check that :

- There are not too many weights.
- The front bed is placed in the upper position.
- The flow combs are opposite each other.
- The cursor is correctly positioned.
- The needles are not damaged.

Liquid crystal display programme (LCD)

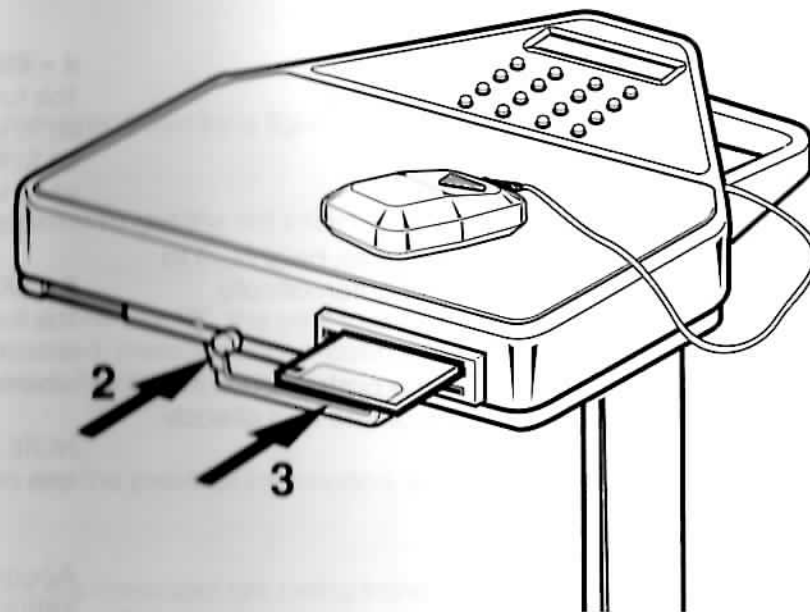
The LCD programme can be used in two different ways :

- 1) You **only** use the LCD programme : you can knit either a shape, or a pattern. You **can not set a pattern on a shape**.
- 2) The whole knitting preparation has been done by means of the TV Programme and you only use the LCD Programme to knit.

STARTING

- Switch on the controller.
- The pilot light on the controller confirms the machine is on.
- Insert the disk "LCD Programme".
- Wait for about 30 seconds to get the programme on the disk loaded into the controller.

IMPORTANT : When the pilot light of the drive is lit up, the disk must not be ejected during the reading of writing process.
The power supply of the controller must not be turned off.



Orientation

1 = RESTORE
2 = SHAPES
3 = PATTERNS
4 = KNITTING
5 = SAVE
YOUR CHOICE (1...5) ??

A message moves across the LCD display on the controller. It requires a selection, but read first the complete message.

Contents of each function

1 = RESTORE

This function allows you to restore a work previously saved.

2 = SHAPES

This function allows you :

- a) To look for a shape in the disk "SHAPES".
- b) To take into consideration all the figures (test samples), heights,...) so as to have the garment to be knitted worked out automatically.

3 = PATTERNS

This function allows you to look for a pattern from the pattern book or for a self-created pattern by means of the TV Programme and already stored.

4 = KNITTING

This function allows you :

- a) To knit the shape selected from the disk "SHAPES".
- b) To knit a selected pattern.
- c) To knit a pattern and a shape prepared by means of the TV Programme

5 = SAVE

This function allows you to store on the disk "PERSONAL/SAVE/DISPLAY" a complete garment during the knitting process, whatever the place where you interrupt it may be.

NOTE : The electronic controller requires 5 minutes to save a work and one minute and a half to restore it.

According to your choice, refer to the required section in the instruction manual.

LCD

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Introduction

The bip sound

- When using the LCD Programme, a bip sound emitted by the electronic controller, confirms that the various, required operations are correct.
- During knitting, the bip sound signals the operations to be done on the machine.
- The bip sound signals as well when a wrong figure has been tapped on the keyboard (in some cases, a message shows and indicates the wrong operation). As far as the numbered ERRORS are concerned, refer to the list and the instructions on page 64.

Symbol >>> on the display

On the display,

Infos : 3 >>>

On the keyboard, press key "8"

On the display,

Carriage on right-hand side >>>

On the keyboard, press key "8"

On the display,

Your pattern has 3 colours

- The symbol >>> preceded by a figure indicates that several informations follow one another (example 3).
- Key "8" allows you to get the first information (example : carriage on right-hand side)
- Each time you press key "8", the next message will appear.
When all indicated messages have been shown, and if you press key "8" again, the first message comes back on the display.
- If you wish to see the previous information, press key "7" on the keyboard.

- The flashing symbol ">" preceded by "WORKING" indicates that the messages are being transmitted to the electronic controller via the disk. the pilot light of the drive is lit up. Wait until the next message appears on the display.

Key "H" HELP

On the keyboard, press key "H"

On the display,

```
HELP
3=Quit knitting
4=Stop/Go
5=Set cursor
6=Change row
(Next:key E)
```

On the keyboard, press key "E"

On the display,

```
7=Previous info
8=Next info
9=Machine state
H=Help
(Quit Help:key H)
```

Key "H" HELP gives access to a recapitulation of the functions of the various keys on the keyboard.

- Key "3" allows you to quit knitting so as to come back to the beginning of the programme and select the required function.
- Key "4" allows you to change the state of the controller during knitting.
GO : Automatic needle selection or transmission of information regarding the shape.
STOP : No automatic needle selection, nor transmission of informations regarding the shape.
- Key "5" allows you to synchronize the electronic controller with the knitting machine. The information regarding the place of the cursor must be given before starting to knit.
- Key "6" allows you a quick move, either forward or backward of one or several rows in the knitting.
- Key "7" allows you to get the previous information in case several messages follow one another.
- Key "8" allows you to get the next information in case several messages follow one another.
- Key "9" allows you to get the information regarding forward movement of the knitting.
- Key "H" allows you to accede to the recapture of all these functions.

You have selected "PATTERNS"

On the keyboard, press key "3"

On the display,

```
***PATTERNS***
```

```
Insert your PATTERN disk and  
press E (or Ø = Abandon)
```

```
TYPE OF KNITTING
```

```
1 = Fancy pattern
```

```
2 = Lace pattern
```

```
3 = Fair Isle
```

```
4 = Jacquard
```

```
5 = Norwegian Jacquard
```

```
6 = 3-colour Jacquard
```

```
7 = 4-colour Jacquard
```

```
>Fair Isle
```

```
Enter your pattern number  
(Ø = Abandon) : _
```

```
OK PATTERN : 40
```

```
Insert your LCD disk and  
press E.
```

Eject the LCD disk and insert the PATTERNS disk holding the selected pattern. On the keyboard, press key "E". According to the selected pattern, it can be the PATTERNS disk, or the TV Programme disk. If it is a self-created pattern, already stored, keep the LCD disk and ask for the required pattern number.

According to the selected type of knitting, the knitting programme adapts itself automatically.
On the keyboard, press the required key. Example : 3

On the keyboard, tap the number of the selected pattern, and press key "E" to confirm your selection. Example : 40.

Before pressing key "E", you can :
- Change the number of the pattern by pressing the correcting key "C".
- Come back to the TYPE OF KNITTING by pressing key "0".

The display confirms that the information regarding the required pattern has been entered correctly into the controller. If this is not the case, the message NOT FOUND will show on the display.

Eject the PATTERNS disk and insert the LCD disk. Press key "E".

You have selected "KNITTING"

after having selected "PATTERNS"

Example : TYPE OF KNITTING 3 and pattern N° 40

On the keyboard, press key "4"

On the display,

```
*KNITTING*  
KNITTING START  
Infos : 2 >>>
```

On the keyboard, press key "8".

```
Carriage on right-hand side >>>
```

On the keyboard, press key "8".

```
Fasten second yarn guide
```

On the keyboard, press key "GO" (4)

-> GO

Prepare your knitting machine : settings of carriages and machine, setting the cursor and the cursor stops (refer to the instructions on page 72), threading, needle setting...

2 messages follow one another.

1st message :

According to the selected type of knitting, the indication "carriage on right-hand side or carriage on left-hand side" shows on the display. Therefore, before starting to knit, move the carriage to the required side.

2nd message :

With the of knitting "Fair Isle", you will find the message "Fasten second yarn guide"

The needle selection for the pattern is done automatically when moving the carriages across the needle bed.

LCD

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Position of the cursor

You must indicate to the controller the position of the cursor in order to determine the setting of your pattern in relation with zero on the needle graduation. To do this,

On the keyboard, press key " ↓ (5) "

On the display,,

CURSOR ? : _

On the keyboard, press key "E".

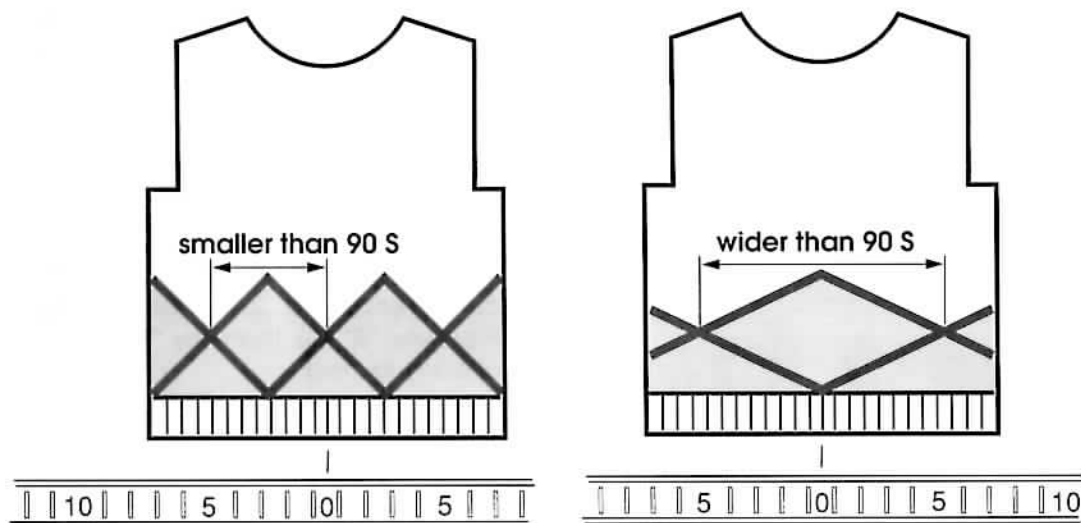
On the machine, look at the number of the needle which is opposite to the centre of the cursor.

- If the needle is on the right-hand side of zero on the needle graduation, tap the number of the needle on the keyboard.
- If the needle is on the left-hand side of zero on the needle graduation, press key "-", and tap the number of the needle on the keyboard.
- Press key "E" to confirm this number.

position of the pattern

1st case : The basic pattern is smaller than 90 stitches. Therefore it will be knitted at both sides of zero on the machine and will be repeated automatically on the whole knitting.

2nd case : The basic pattern is wider than 90 stitches. Therefore it will be knitted and centered in relation with zero on the machine and will be repeated automatically on the whole knitting.



SPECIFIC CASE : Single design

In order to knit a single design using the LCD Programme, you must prepare the pattern with the TV Programme. Save, switch off the controller, switch on again with the LCD Programme, and restore before starting to knit.

Selection stop

On the keyboard, press key "STOP" (4)

```
-> STOP . . . .
```

On the keyboard, press key "GO" (4)

```
-> GO . . . . .
```

```
> Rows : 14
```

The automatic needle selection is stopped.

CAUTION : According to what you are knitting, change the settings on the carriages if you wish to carry on without automatic needle selection.

The automatic needle selection is working again.

CAUTION : The pattern will be resumed from the pattern line on which it was when using the selection stop function.

If you wish to resume knitting from the first pattern line, set the counter of the electronic controller to zero. Take a note of the number of rows shown on the display. Press key "R" (6), then key "-", and tap the number corresponding to the number of rows already knitted.

You have selected "SHAPES"

On the keyboard, press key "2"

On the display,

SHAPES

Insert your SHAPES disk and
press E (or Ø = Abandon)

Enter the number of the
section and the size (Ø =
Abandon) : _

OK SHAPES : 273-13

Insert your LCD disk and
press key E

Eject the LCD disk and insert the SHAPES disk. Press key "E".

On the keyboard, tap the number of the selected part. Press key "-". Tap the number of the size. Press key "E" to confirm your selection. Example : 273-13.

Before pressing key "E", you can :

- Modify the number of the part to be knitted by pressing the correcting key "C".
- Come back to the TYPE OF KNITTING by pressing key "0".

Several messages regarding the part to be knitted as well as those required to work out the garment, will show on the display. Answer accordingly to the various questions as they appear on the display.

In order to get more details about the answers to be given, refer to the instructions in the heading "Preparation of the part to be knitted" on page 56 and "Test sample" on page 69.

The display confirms that the information regarding the required part have been entered correctly into

Eject the SHAPES disk and insert the LCD disk. Press key "E".

You have selected “KNITTING”

after having selected “SHAPES”

Example : Shape N° 273, size 13

On the keyboard, press key “4”

On the display,

```
#KNITTING#  
KNITTING START  
Infos 2 : >>>
```

On the keyboard, press key “8”.

```
Carriage on right-hand side >>>
```

On the keyboard, press key “8”.

```
Starting at needle 28 on the  
left-hand side of zero, and  
going towards the right-hand  
side, cast-on 56 stitches in  
rib or for any other type of  
welt
```

On the keyboard, press key “GO” (4).

```
-> GO....
```

2 messages follow one another.

1st message :

According to the selected option (Start with carriage on left-hand side Y/N) when selecting the part to be knitted, the indication “carriage on right-hand side or carriage on left-hand side” shows on the display. Therefore, before starting to knit, move the carriage to the required side.

2nd message :

Move the number of needles corresponding to the number of stitches indicated on the display, into working position. Set them as for the selected pattern stitch. Prepare your knitting machine : settings of carriages and machine, setting the cursor and cursor stops (refer to the instructions on page 72), threading...

You can start knitting.

As you knit, the display shows the operations to be done on the machine : // **20 row(s), change pattern, +1 stitch (es), -3 stitch(es)**... When the message End of Knitting is shown on the display, cast-off the remaining stitches.

LCD

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Transmission stop of messages

On the keyboard, press key "STOP" (4).

On the display,

-> STOP

- If you continue to knit, you will not get anymore the messages regarding the operations to be done on the part to you are currently knitting.

On the keyboard, press key "STOP" (4).

On the display,

-> GO

- You get again the messages regarding the part you are knitting.
CAUTION : The messages will be shown from the row where you were when the transmissions stop occurred.

Machine state : Key "9"

When knitting a shape or a pattern, you can press key "9" to get the messages regarding the forward movement of the knitting.

STATE : GO >>>

ROWS : 14 >>>

STITCH : 56 >>>

HOLDING : 0 >>>

CURSOR : 35

- Indication of the state of the controller, i.e. "STOP" or "GO".
- Corresponds to the number of rows already knitted.
- Corresponds to the number of stitches in working position (180 if you have selected "PATTERNS").
- Corresponds to the number of needles in holding position.
- Corresponds to the current position of the cursor.

“KNITTING ” with preparation by TV

After having prepared your knitting with the TV Programme disk, and after having saved it on the SAVE disk, switch off the electronic controller. Eject the disk. Switch on the controller.


Insert the LCD disk. Wait until the LCD Programme is ready.

On the keyboard, press key “1” RESTORE.

On the display,

OK RESTORE after about one minute and a half.

On the keyboard, press key “4” KNITTING.

- On the display, you can read the messages regarding the beginning of the knitting. Prepare your knitting machine : settings of carriages and machine, setting of cursor stops, (refer to the instructions on page 72), threading, needle setting...
- Indicate the current position of the cursor. Press key  (5). Tap on the keyboard the number of the needle opposite to which the centre of the cursor is placed. Press key “E” to confirm.
- On the keyboard, press key “GO” (4). You can start knitting.
- As your knitting moves forward, all required messages regarding the knitting of the part and the pattern, will be shown on the display.



