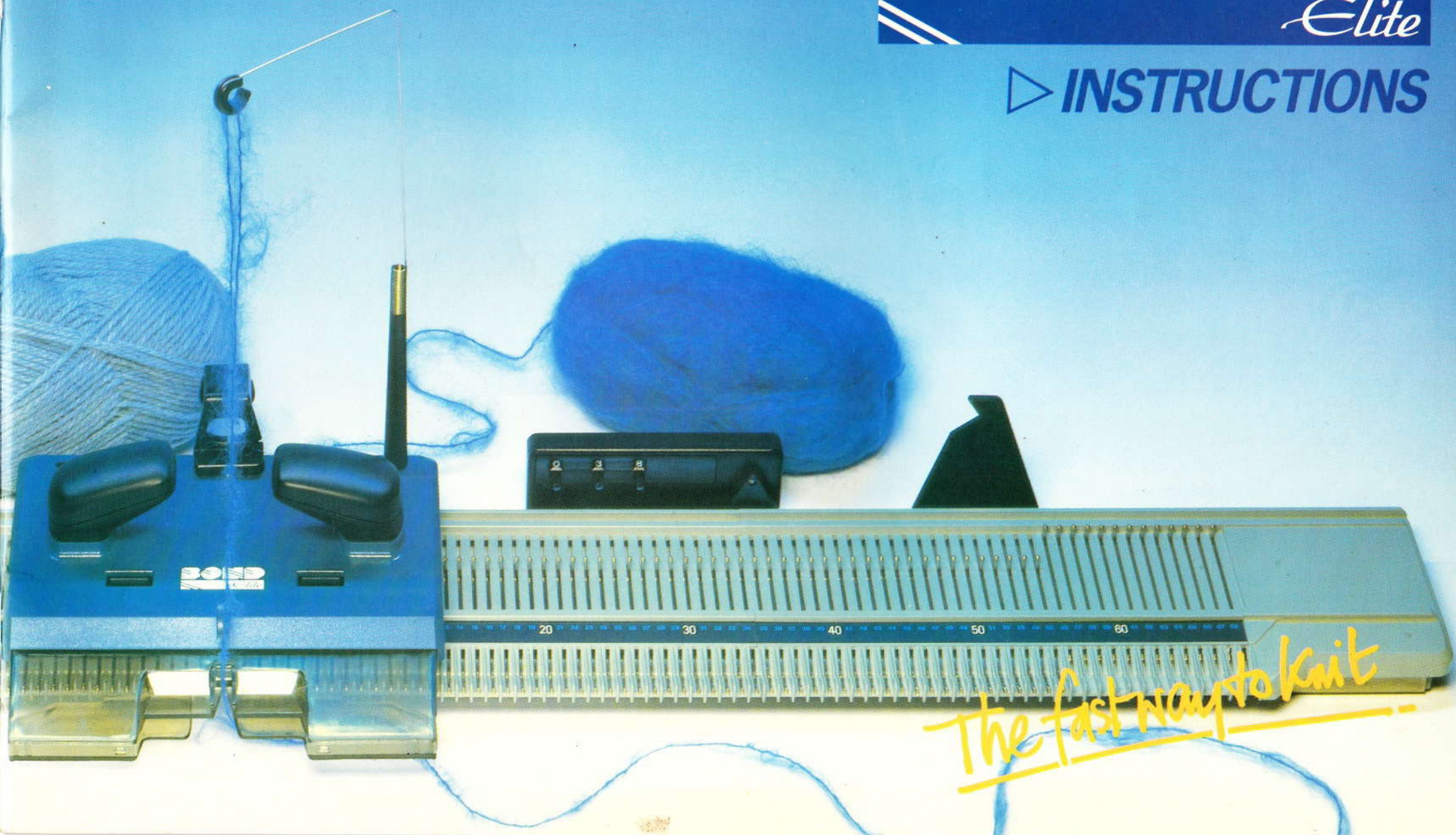


# BOND

*Elite*

▷ INSTRUCTIONS



*The fast way to knit*

# *Welcome to BOND*

If you are new to knitting .....

First read "Questions and Answers About Knitting", page 40. Then turn to "Quick Start", page 2, and follow the steps. This will get you started quickly.

Practise your knitting and try the basic techniques, page 11, using the ball of yarn in the box and keyplate 4. Important: Read the yarn guide before knitting anything.

When you are confident read "How to Read a Pattern", page 38. Then turn to Pattern 1 in "First Steps in Fashion" to knit your first garment.

If you are a handknitter .....

To get started we suggest you follow the steps above, as if you were new to knitting. It is important that first you knit Pattern 1 in "First Steps in Fashion" to learn the basic techniques for making garments with your BOND.

You will find that many of the ways of doing things are just like handknitting. If you want to use a handknitting pattern read "To Use Hand Knitting Patterns", page 39. Important: Read the yarn guide before knitting anything.

If you are a machine knitter .....

The BOND works in a similar way to conventional knitting machines but it is specially designed to knit a wide range of yarns and to give your knitting a soft handknit feel.

Even if you are familiar with knitting machines we suggest you work through "Quick Start" to get used to your BOND. Then knit Pattern 1 in "First Steps in Fashion". Important: Read the yarn guide before knitting anything.

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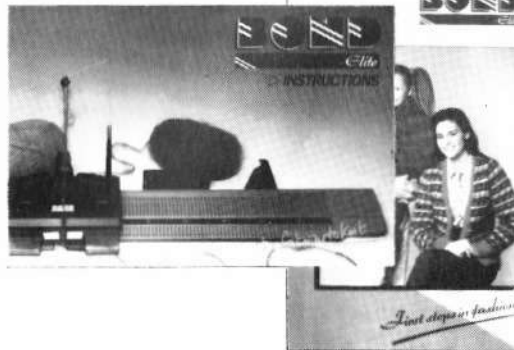
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# QUICK START

# PARTS OF YOUR BOND

Instruction Book



Pattern Book "First Steps In Fashion"

YARN GUIDE

Yarn Guide



Yarn Spring

Three Prong Tools



Two Prong Tools



Latch Tool

Single Prong Transfer Tool

Row Counter



Right Hand Yarn Stop



Left Hand Yarn Stop



Yarn Feed



Yarn

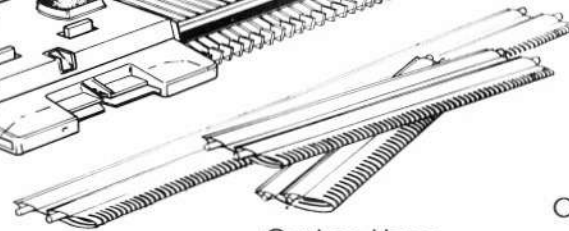


Clamp

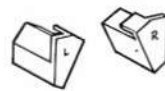
Cast On Elastic



Cast on Hems



Knitting Weights



Key Blocks



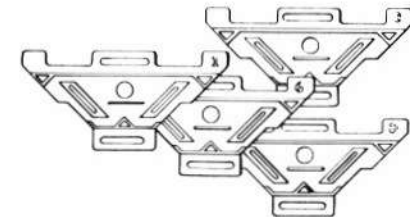
Clamp



Yellow Card



Needle Selector



Four Double Sided Keyplates



# QUICK START

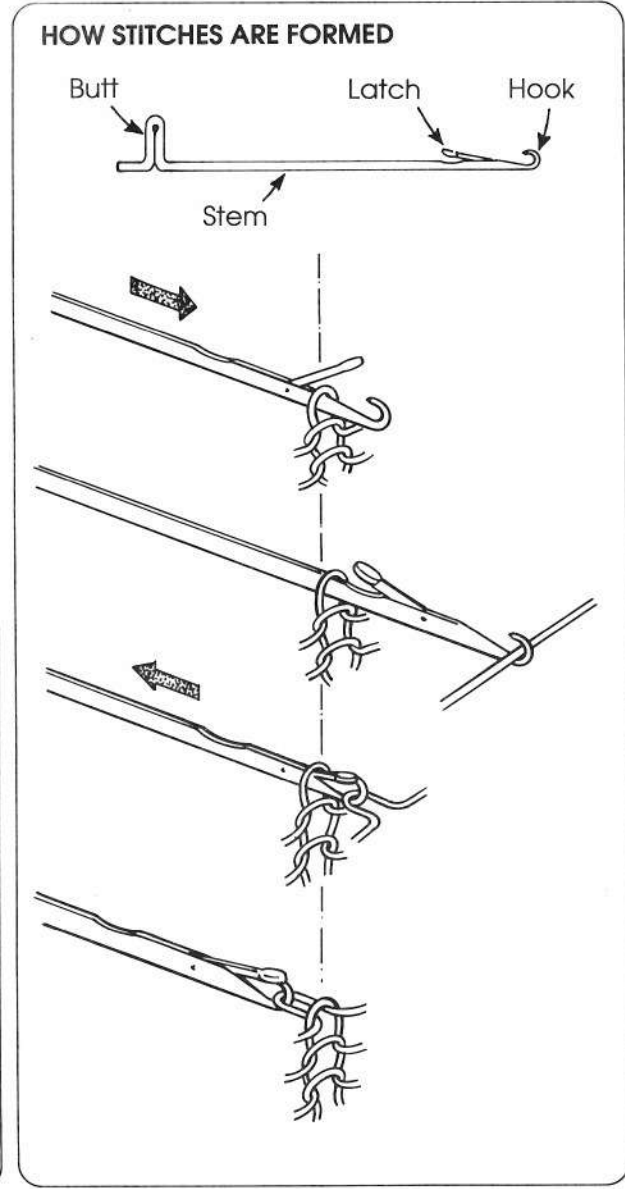
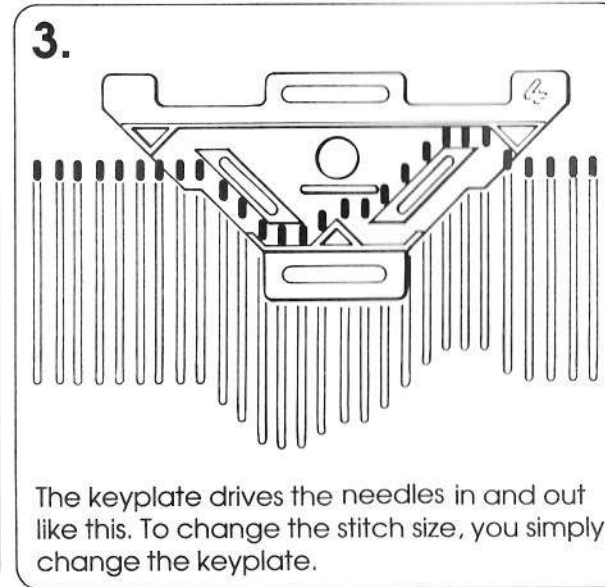
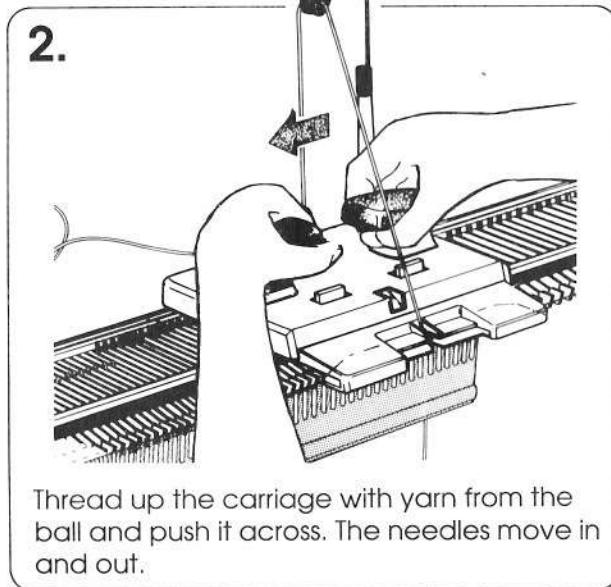
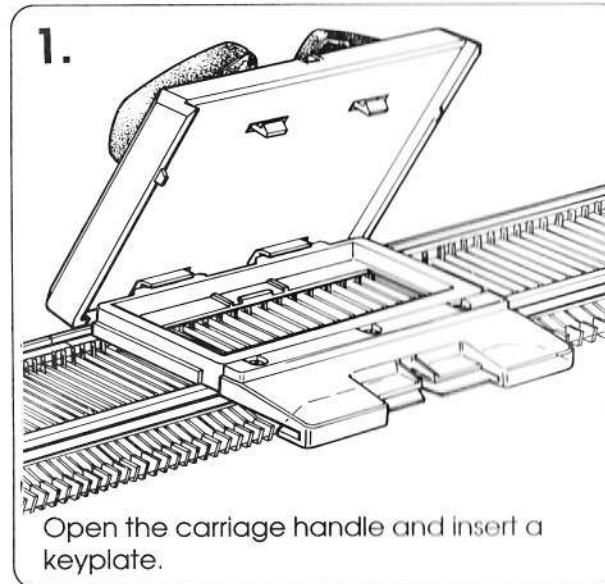
# HOW THE BOND WORKS

## HOW THE BOND WORKS

The needle bed has 136 needles. Each needle knits a stitch. When you insert a keyplate in the carriage and push it across a row of stitches is knitted.

The keyplate drives the needles in and out. When the needles pass under the carriage they pick up the yarn and knit a stitch.

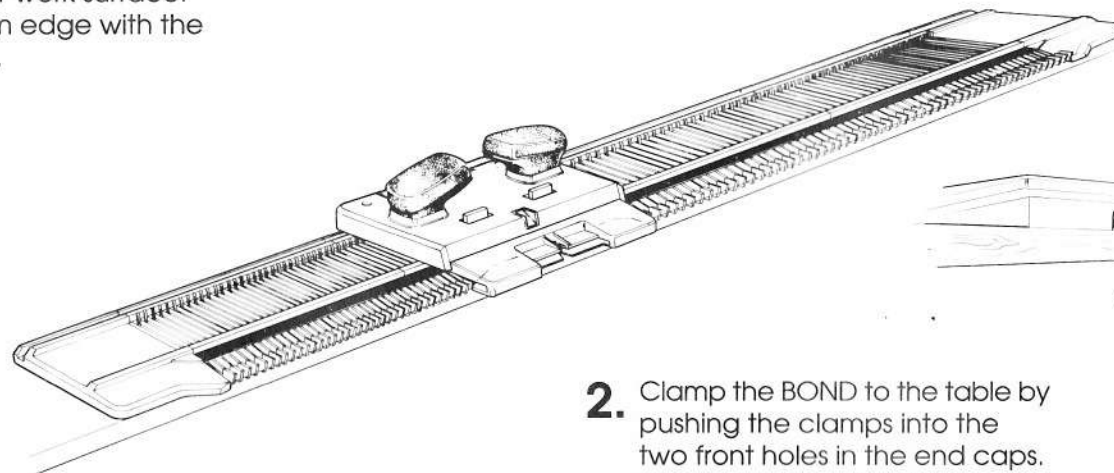
If you want to knit for example something 70 stitches wide and 80 rows long, you cast on 70 needles and push the carriage across 80 times. Its as easy as that !



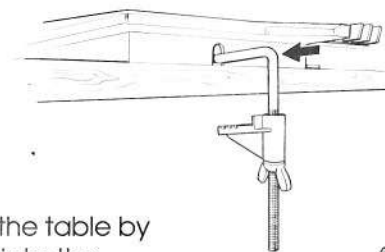
## QUICK START

## TO SET UP

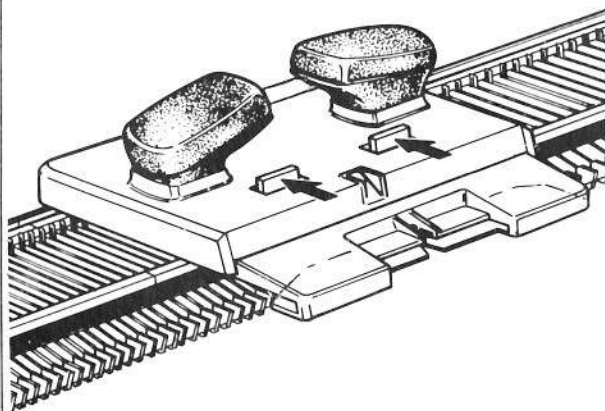
1. Take the BOND out of its box and put it on a table or work surface. Line up the bottom edge with the edge of the table.



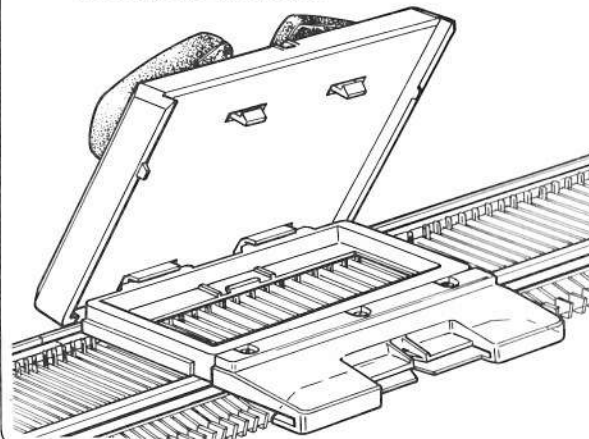
2. Clamp the BOND to the table by pushing the clamps into the two front holes in the end caps. Push the clamps right in.



3. To open the handle, push both catches back.

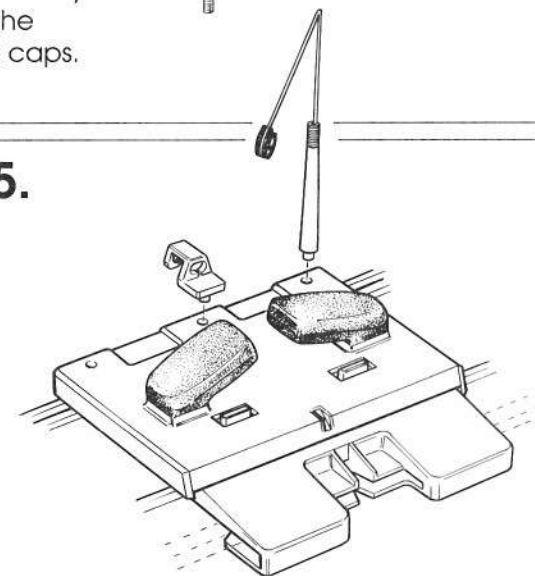


4. To lock the handle closed, push both catches forward after closing the handle.



- 5.

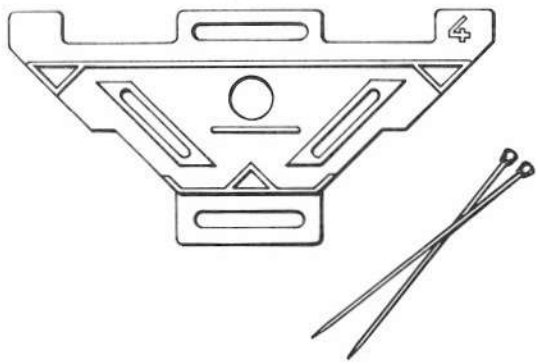
Push the yarn feed and yarn spring into the carriage as shown. Twist the spring round so the eyelet is forward as shown.



# QUICK START

# KEYPLATES

1.



The keyplates are like handknitting needles. They give different size stitches. The keyplates fit into the carriage.

2.

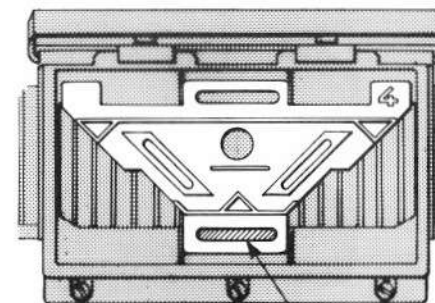
The keyplates are double sided so four keyplates give you eight different handknitting needle sizes. The table below shows the keyplate equivalents to hand needle sizes.

KEYPLATE	1	2	3	4	5	6	7	8
METRIC	3	3-3¼	3½-3¾	4	4-4½	5	5½	6
USA	3-2	3-4	4-5	5-6	6-7	7-8	8-9	9-10
<i>BRIT</i>	<i>11</i>	<i>11-12</i>	<i>9</i>	<i>8</i>	<i>8-7</i>	<i>6</i>	<i>5</i>	<i>4</i>

Dependant on thickness of yarns you may need to use a keyplate higher or in the case of chunky, alternate needles. See Yarn Guide for details.

3.

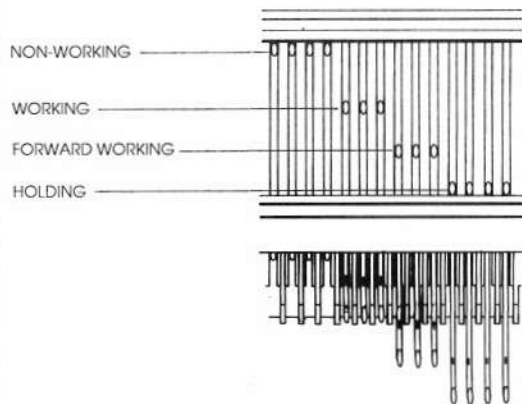
Insert keyplate four into the carriage. The number 4 must be on top. The slot in the keyplate fits over the bollard at the front of the carriage.



bollard

4.

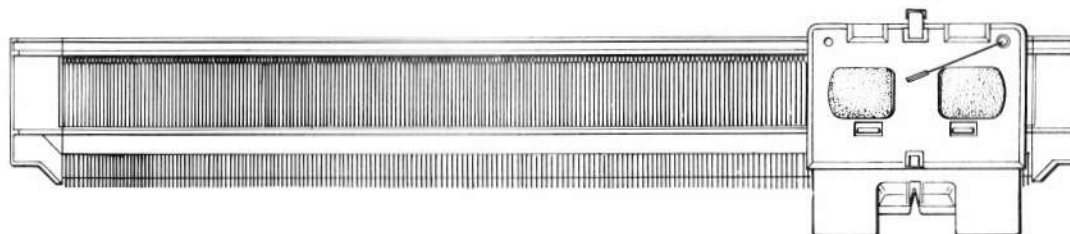
There are four needle positions.



Needles in non working and holding position do not knit.

5.

Before casting on, check that all the needles are in non working position. Push the carriage to the right hand end. Check that the two catches are closed to stop the handle opening.





## QUICK START

The weighted hem must be hung on the needles before casting on. It pulls the knitting down and must stay on the knitting until the end.

### Push Off Lap

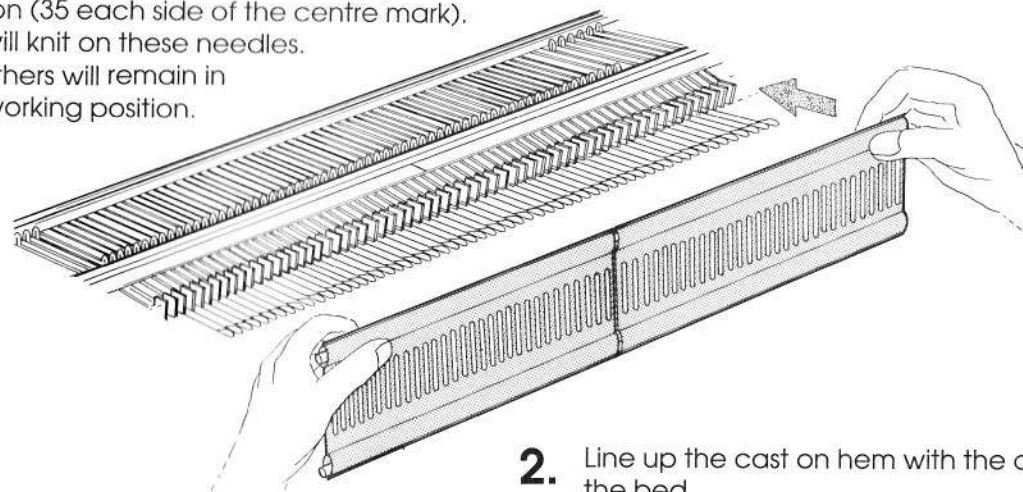
When the hem reaches your lap, push it off your knees so it continues to hang down on the knitting.

### Remove Hem

To remove the hem at the end, carefully snip out the elastic with scissors. The hem will come off the knitting. See page 14 for more information.

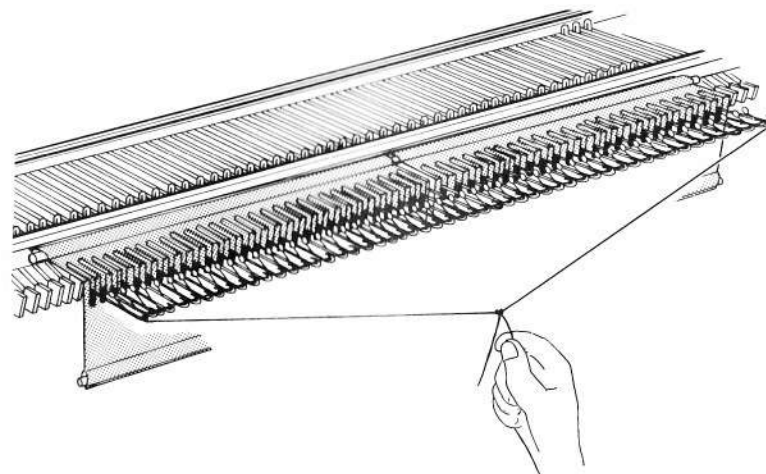
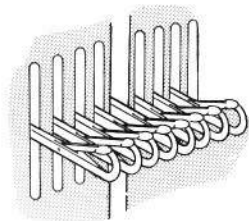
## CAST ON

1. Push 70 needles forward into holding position (35 each side of the centre mark). You will knit on these needles. The others will remain in non working position.



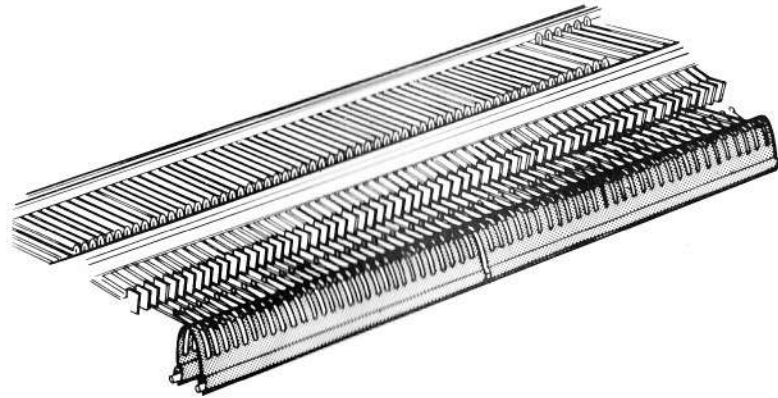
2. Line up the cast on hem with the centre of the bed.

3. Push the slots over the needles and fold the hem back onto the needle bed.

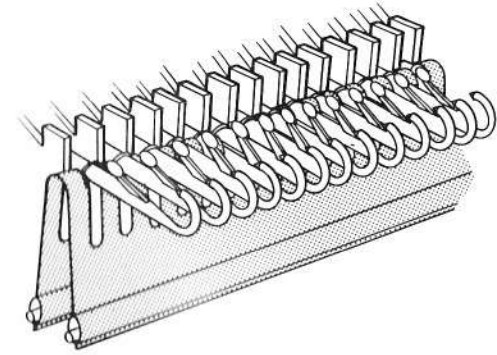


4. Check all the latches are open and place a length of elastic in the hooks. Tie the ends of the elastic together.

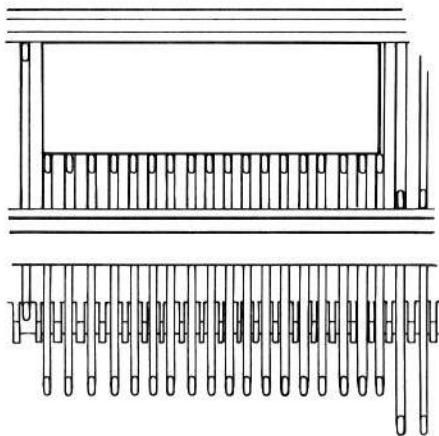
- 5.** Fold the hem over so it hangs on the elastic.



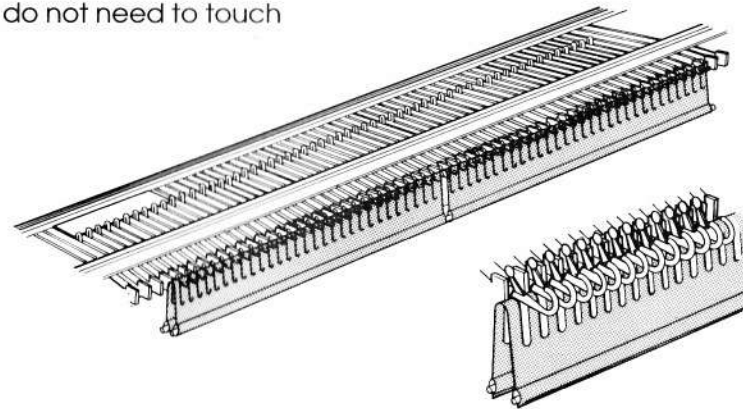
- 6.** Push the hem back against the needle bed, leaving the needles in holding position.



- 7.** Using the yellow card to position the needles, push the needles into forward working position.



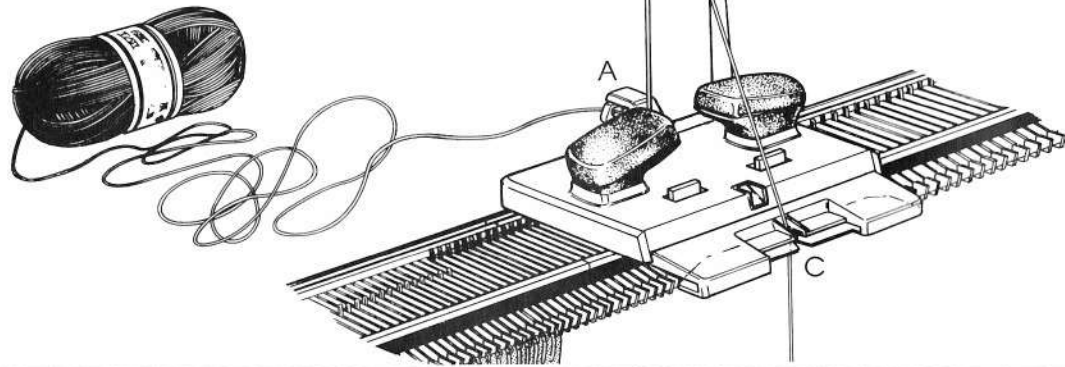
- 8.** Check all the latches are still open. When you knit the latches will open and close automatically. You do not need to touch them.



# QUICK START

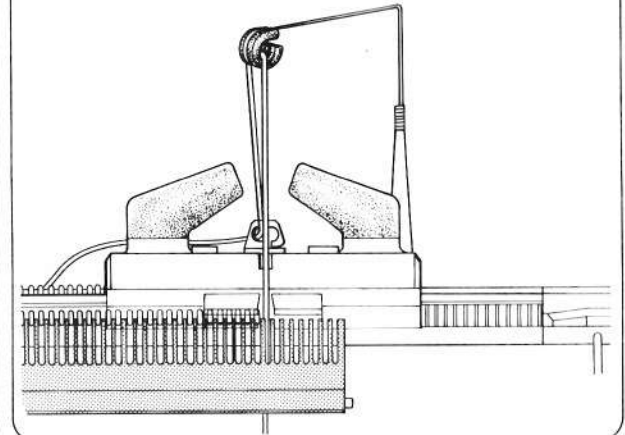
# CAST ON

1. Take the ball from the box and pull free plenty of yarn. Thread the yarn through the yarn feed (A), the yarn spring (B) and the slot in the front fairing (C).

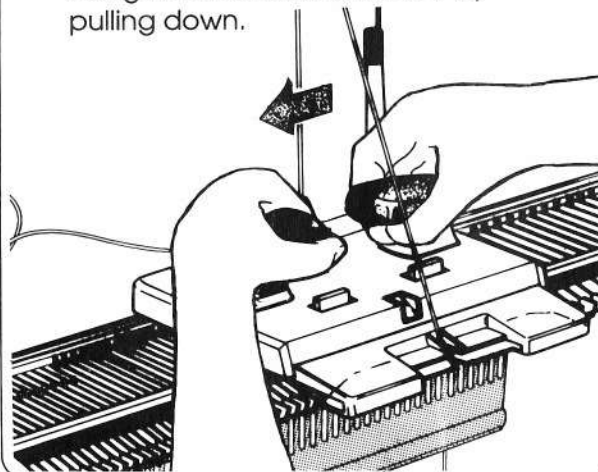


You can twist the eyelet (B) round to stop the yarn jumping out.

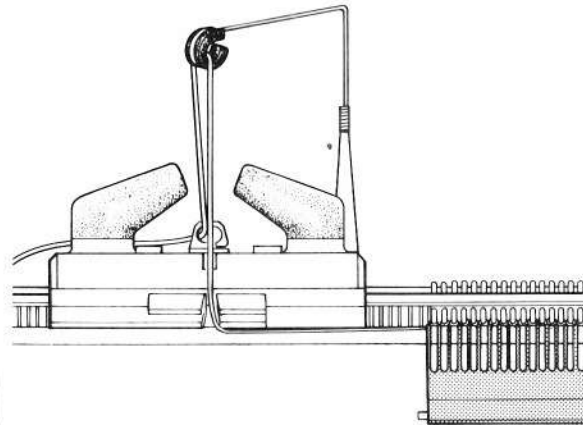
2. Line the carriage up carefully with the first working needle. Make sure the yarn hangs straight down behind the hem.



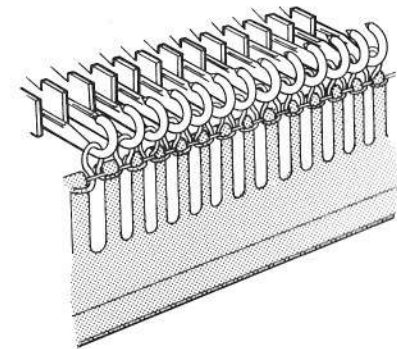
3. Now push the carriage across slowly and firmly. If the hem gets caught in the needles, free it by pulling down.



4. Push the carriage right past the last working needle. Pull down on the hem to make sure all the stitches have formed.



5. Your first row should look like this.



Do not worry if this first row is difficult to knit. Just push the carriage across slowly and firmly. If the hem gets caught, free it by pulling down.



1. Before knitting the next row, pull out plenty of yarn from the ball. You must always knit from free yarn otherwise you will get a row of tight stitches.



You may find it easier to put the ball of yarn on the floor behind the table.

2. Line the carriage up with the first needle. Pull the loop of yarn back until the yarn spring is bent over, then let go of the yarn gently.



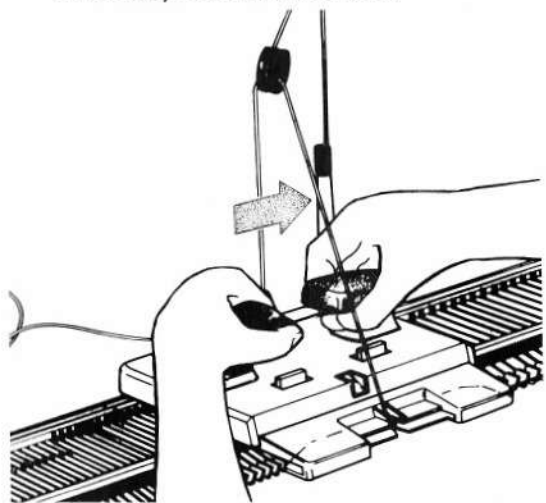
## YARN SPRING

The yarn **MUST** run freely when you are knitting. If the yarn gets tight, the spring will bend over. When this happens, stop and pull more yarn out of the ball.

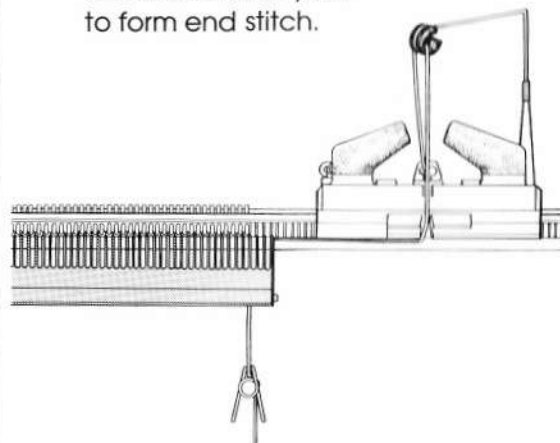
Make sure the loop at the end of the spring is directly over the centre of the carriage.

**The spring can take up the loops at the ends of the rows automatically if you use the two yarn stops. See page 10.**

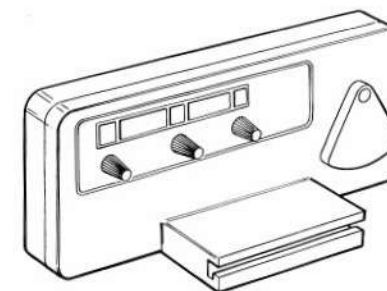
3. Knit the row. Push the carriage smoothly and not too fast.



4. Push the carriage right past the last working needle. Hang clip on loose end of yarn to form end stitch.



## ROW COUNTER

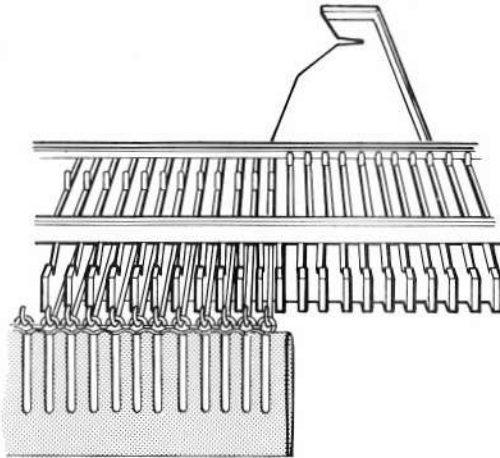


Slide the row counter onto the back rail and position it in the centre. Set the dials to zero using the three re-set knobs. The counter will count each row knitted.

## QUICK START

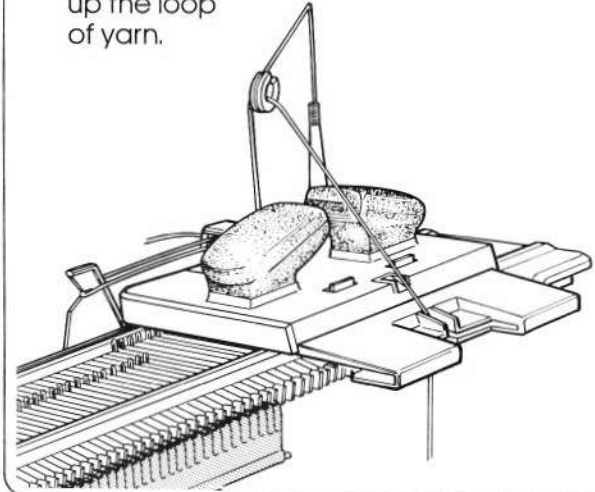
**LOOPS AT THE EDGE OF YOUR KNITTING**  
Before knitting each row you must pull back the loop of yarn. You can do this automatically if you wish by using the Yarn Stops, but remember to pull out plenty of free yarn from the ball before knitting each row. If you do not, you will get rows of tight knitting.

1.

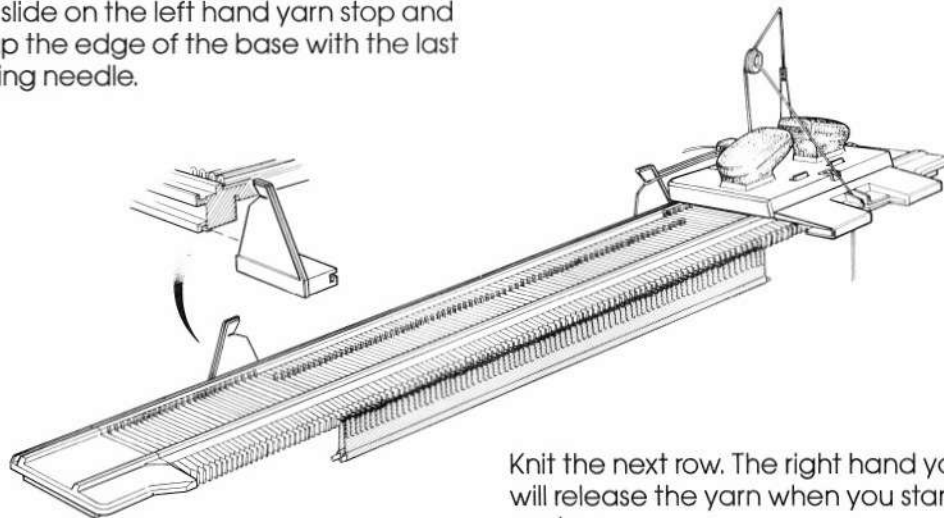


With the carriage on the left, slide on the right hand yarn stop and line up the edge of the base with the last working needle.

2. Knit the next row. The yarn stop will catch the yarn and bend the spring over to take up the loop of yarn.



3. Now slide on the left hand yarn stop and line up the edge of the base with the last working needle.



Knit the next row. The right hand yarn stop will release the yarn when you start the next row.

If you get tight stitches at the end of the row or the yarn does not release from the yarn stop then push the yarn stop slightly further out.

If the yarn stop does not catch the yarn then push it slightly further in.

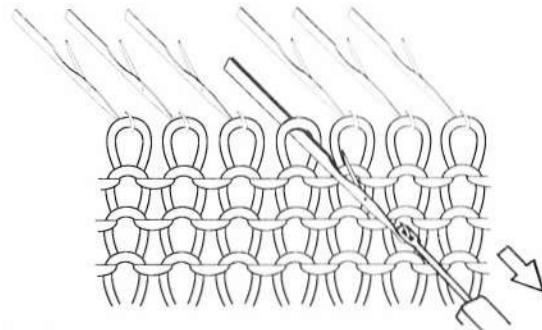
Do not push the carriage too far past the end stop otherwise this may trap the yarn in the yarn stop.

When knitting on all needles you may want to move the yarn stop further out than the end of the bed. To do this, remove the screw and off-set the yarn stop so the hole at the edge lines up with the centre of the shoe. Then screw back up.

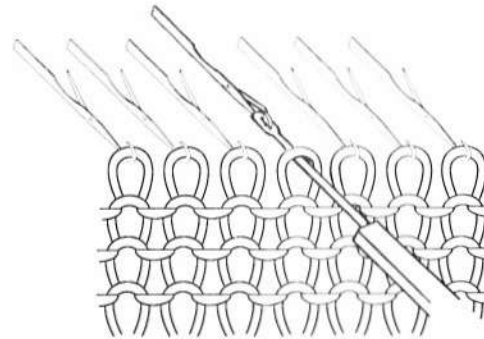
## QUICK START

## TRY THESE BASIC TECHNIQUES

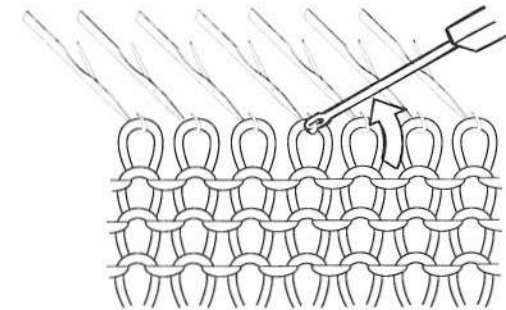
### HOW TO USE THE TRANSFER TOOL



1. Put the transfer tool over the needle hook and pull it out. *Keep the transfer tool **in line** with the needle at all times.*

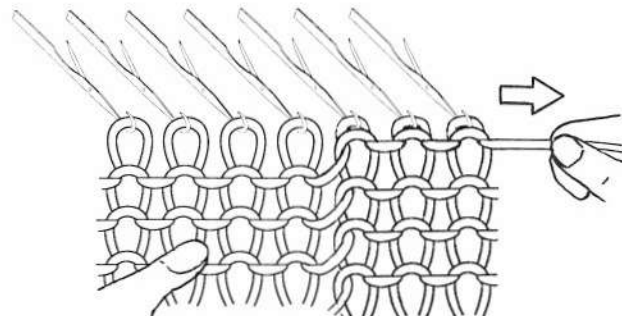


2. Push the transfer tool back so the stitch slides from the needle onto the transfer tool. You can then either transfer the stitch to a neighbouring needle or put it back.

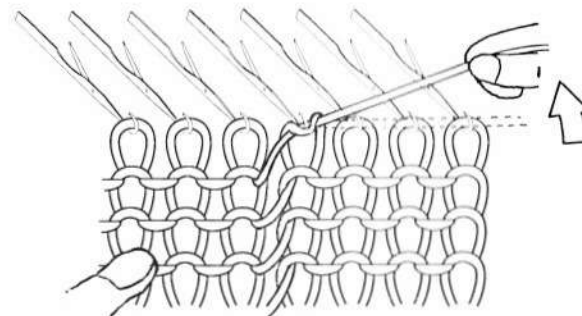


3. Open the latch of the needle to receive the stitch and move the transfer tool so the stitch slides back into the hook. *Keep the transfer tool **in line** with the needle at all times.*

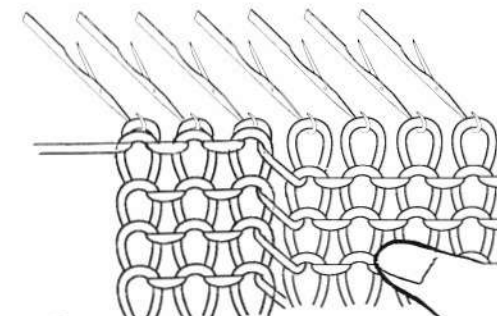
### HOW TO UNRAVEL A ROW



1. Make sure all the stitches are in the needle hooks. Then hold the knitting down with one hand and pull the end of the yarn sideways with the other hand.



2. Lift the yarn upwards and backwards while you pull, so the stitches of the previous row slide back into the needle hooks.



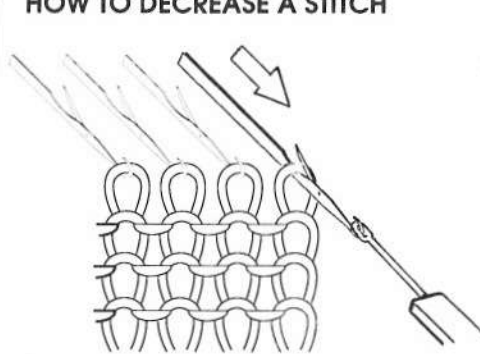
3. To unravel the next row, do it in the same way but from the other end!



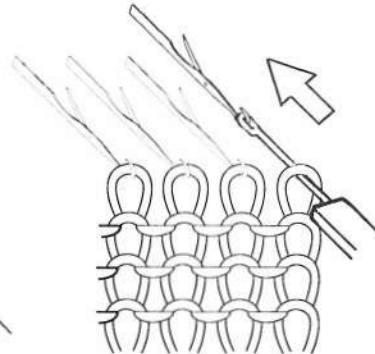
## QUICK START

## TRY THESE BASIC TECHNIQUES

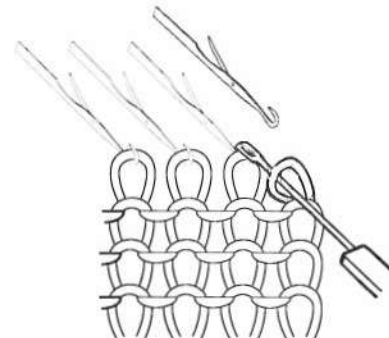
### HOW TO DECREASE A STITCH



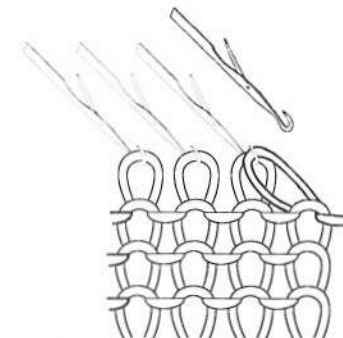
1. Put the eye of the transfer tool onto the end needle hook. Pull the needle towards you until the stitch slides behind the latch.



2. Push the needle back until the stitch slides over the latch and onto the transfer tool. Keep the transfer tool in line with the needle.

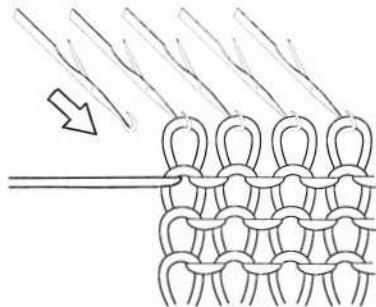


3. Place the transfer tool onto the next needle and raise the handle so the stitch slides into the hook.

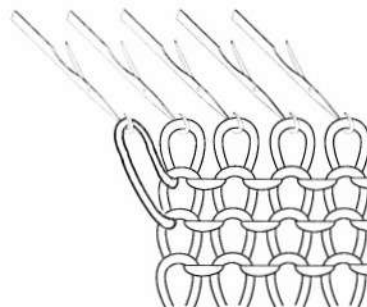


4. Remove the transfer tool and push the empty needle back into non-working position.

### HOW TO INCREASE A STITCH



1. Push out an extra needle on the carriage side. Make sure the latch is open and the yarn is under the needle.



2. Knit a row in the usual way. A new stitch will be formed.

### RUNNING OUT OF YARN

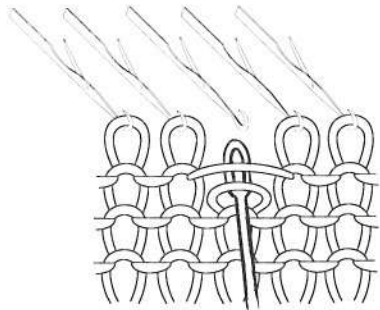
**Do not let the yarn run out half way through a row or you will drop stitches**

1. Stop knitting *before* the old ball of yarn runs out. Always stop at the end of a complete row. Do not stop half way through a row.
2. Remove the end of the old yarn from the carriage and let it hang down by the side of the knitting.
3. Thread up the new ball of yarn and knit a row.
4. Tie the two ends of yarn together at the edge of the knitting.

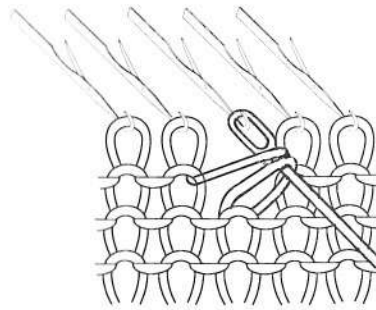
## QUICK START

## TO PICK UP A DROPPED STITCH

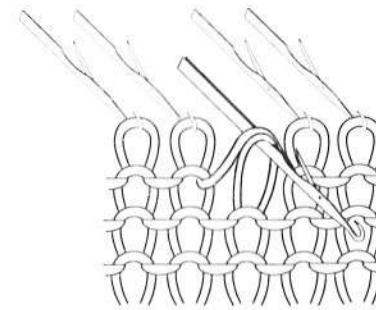
As soon as you notice a dropped stitch, pick it up immediately. Use the transfer tool.



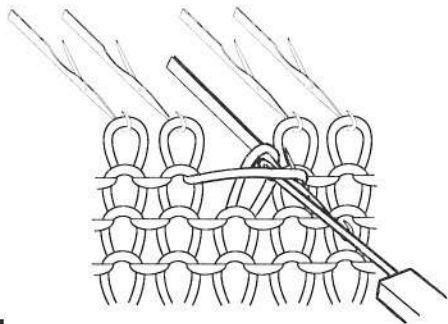
- 1.** Insert the tool into the dropped stitch as shown .



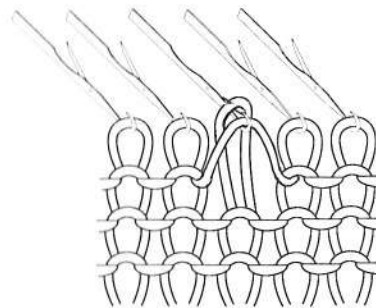
- 2.** Hook the tool onto the empty needle and lift the loose bar of yarn and stitch onto the needle .



- 3.** Push the needle out until the bar of yarn and stitch slide behind the latch .

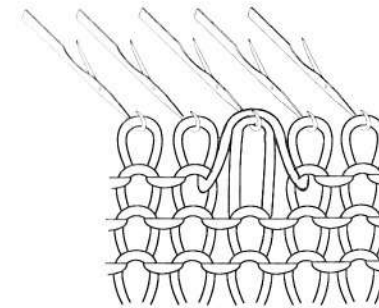


- 4.** Lift the loose bar of yarn over the latch and into the hook . Leave the stitch behind the latch .



- 5.** Push the needle back . This knits off the bar of yarn and re-forms the dropped stitch .

### UNFORMED STITCH

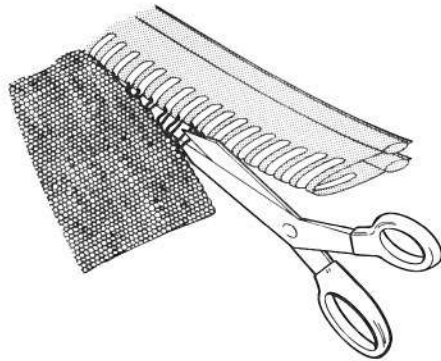


If the stitch looks like this, proceed from step 3 .

## QUICK START

## CAST ON HEM AND WEIGHTS

### TO REMOVE THE HEM



Carefully snip the elastic with scissors. Pull the hem off gently.

### PUSH HEM OFF LAP

The hem must always hang down freely on the knitting **TO GIVE IT WEIGHT**. When it reaches your lap make sure to push it off your knees.

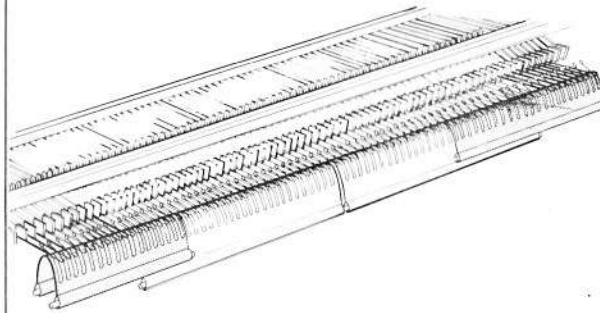
### REHANG THE HEM

If the hem hits the floor, remove it and rehang it on the needles exactly as described in pages 6 and 7.

### MORE WEIGHT

Thicker yarns may need more weight. If the stitches are not forming correctly then just pull down on the cast on hem.

### USING LOTS OF NEEDLES



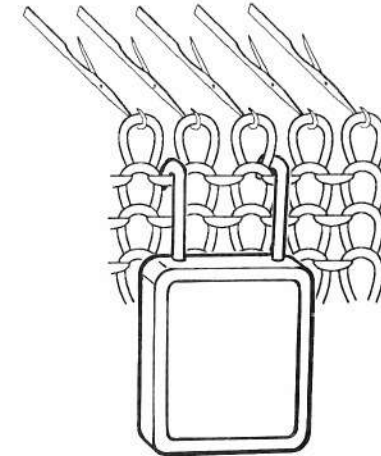
The long cast on hem has 84 slots and the two short hems have 42 slots each.

To cast on more than 84 needles, first lay the long hem over the needles making sure to line up the centre with the centre of the needle bed. Then lay the two short hems over the needles at both ends. Overlap the hems so the edges line up with the last working needles.

Lay the elastic in the needle hooks and tie the two ends together. Fold the hems over and push them back against the needle bed.

Push the needles into forward working position using the yellow card and check all the latches are open.

### KNITTING WEIGHTS

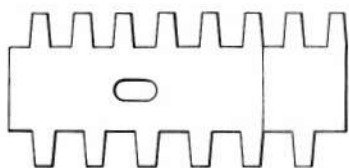


If you find the edge stitches are not forming or are dropping then use the knitting weights. They are particularly helpful when increasing.

Hang the weights on both edges as shown. Move them up about every ten rows.

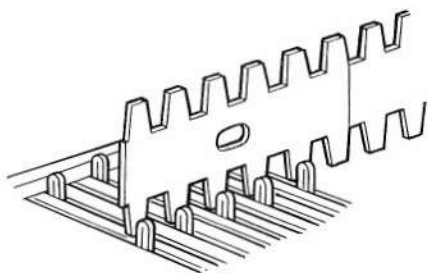
## QUICK START

### NEEDLE PUSHER

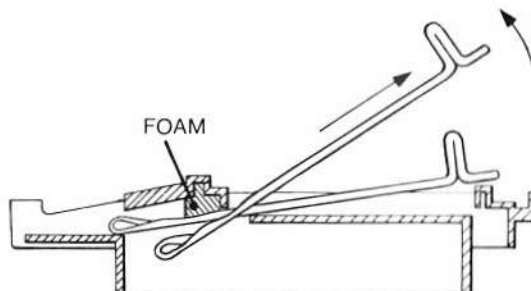


To knit patterns you have to push combinations of needles into holding position. To help you do this easily, you can use the BOND Needle Pusher.

Adjust the Needle Pusher to the required needle combination. Then put the teeth of the pusher behind the needle butts and push them forward.

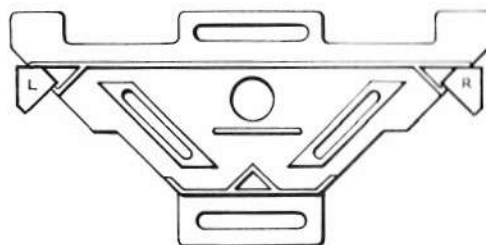


### TO REMOVE A NEEDLE



Push the needle forward into holding position. Close the latch. Then, hold the back of the needle high and at the same time pull the needle out.

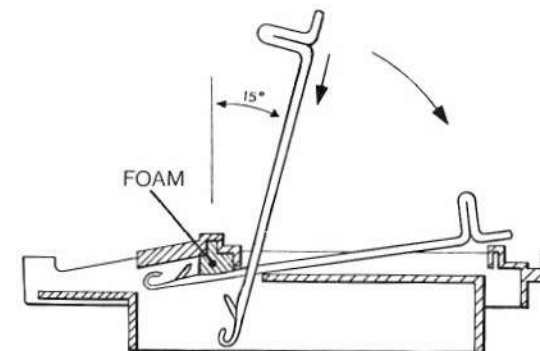
### KEY BLOCKS



When using keyplate 7 or 8 add the key blocks as shown. They clip over the edge of the keyplate. The key blocks push the needles further forward which helps when knitting thicker yarns or mohair.

## ACCESSORIES

### TO REPLACE A NEEDLE



Open the latch. Then push the needle vertically down under the front rail at about an angle of 15 degrees. Then lay the needle back onto the bed.

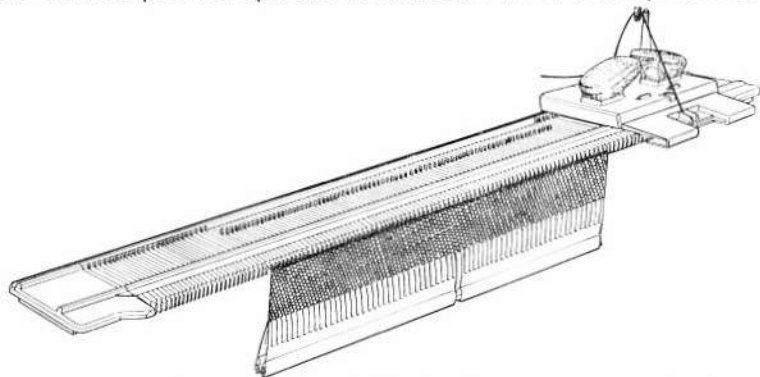
Now take the one prong tool, slide it under the needle and push it forwards while you hold the back of the needle down. This will lift the front of the needle up so you can slide it into place.

**NOTE:** There is a strip of foam under the front rail. TAKE CARE NOT TO TEAR IT WITH THE NEEDLE HOOK WHEN YOU REPLACE A NEEDLE.

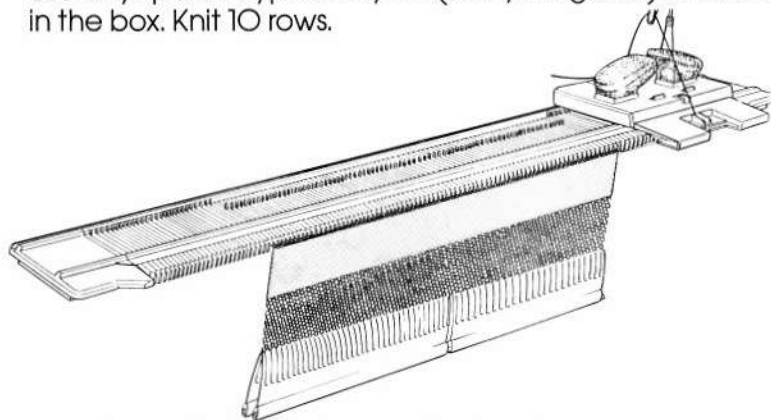


## OPEN EDGE CAST-ON

An open edge cast-on gives an open row of stitches in the first row. These can be picked up later to knit on a rib or sew up as a seam.



1. Cast on as shown in Quick Start using some waste yarn. Use any spare keyplate 5 yarn (see yarn guide) or use the ball in the box. Knit 10 rows.

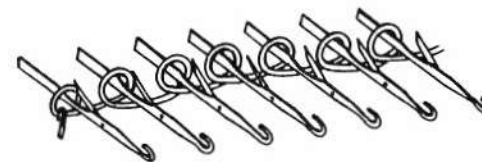


2. Thread up with the main yarn. Start knitting your pattern counting the first row of main yarn as the first row of the pattern.

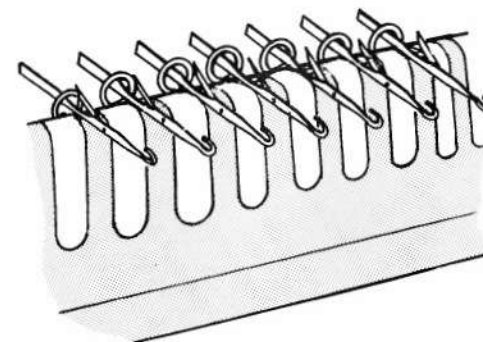
**After finishing your knitting,** you can pick up the first row of main yarn stitches to knit on a rib or to sew into a seam. You can then unravel the waste yarn. This will stop you losing any of your main yarn stitches.

## CLOSED EDGE CAST-ON

A closed edge cast-on gives an edge that looks just like hand knitting. The first row of stitches will not run.



1. Tie the yarn to the last needle. Then wind the yarn anticlockwise LOOSELY round the needles, behind the latches.



2. Hang on the cast on hem with elastic in the usual way. Push the hem behind the latches. Push the needles into forward working position and knit the row.

## TO SHAPE BY DECREASING

When you knit a garment you need to shape the armholes, shoulders, and neck. This is normally done by decreasing stitches at the ends of the rows.

### DECREASING LIKE HAND KNITTING

To decrease more than one stitch, you cast off the stitches you need to decrease, just like hand knitting. To decrease just one stitch, you simply transfer the end stitch onto the next needle, and knit the two stitches together.

### FULLY FASHIONED DECREASING

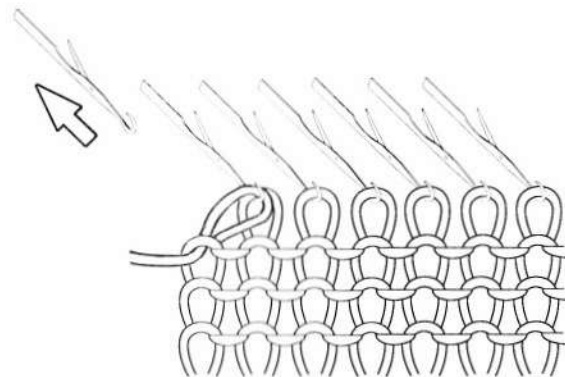
If you want to knit a Raglan shaped sweater it is normal to use a fully fashioned decrease. This can be done with either a three prong transfer tool or a two prong transfer tool. The two pronged transfer tool gives a less pronounced fully fashioned effect.

### SHAPING USING HOLDING POSITION

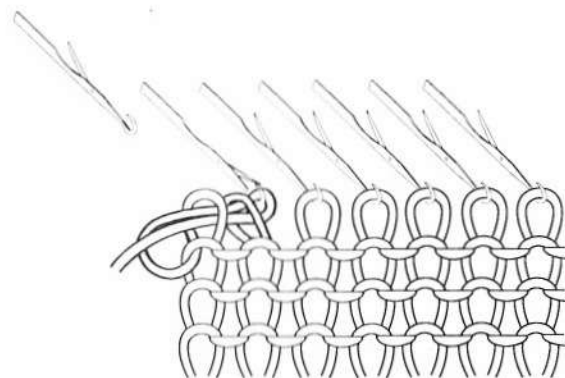
Another way to decrease is to put needles into holding position. In holding position needles do not knit. This gives a very neat edge of open stitches which can be picked up easily when you want to sew the seams together or knit on a rib, e.g. round the neck. You can also knit darts by putting needles into holding position.

## TO DECREASE MORE THAN ONE STITCH AT A TIME — KNOWN AS CASTING OFF

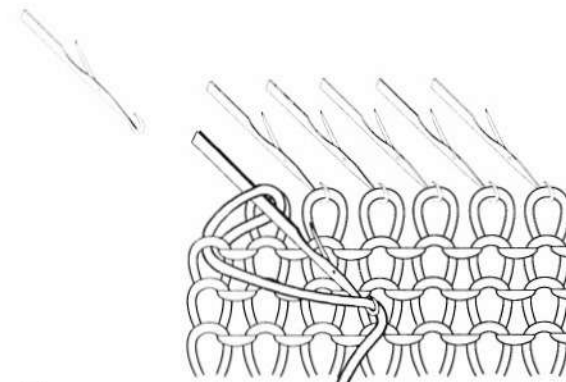
(Can only be carried out on the SAME SIDE as the carriage)



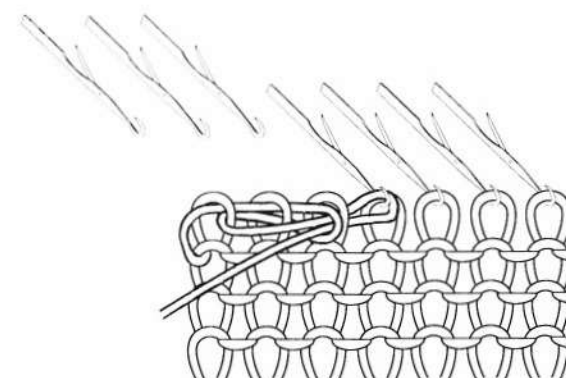
1. Transfer the end stitch onto the next needle and push the empty needle back to non-working position.



3. Push the needle back to form a new stitch. Make the new stitch the same size as the other stitches.

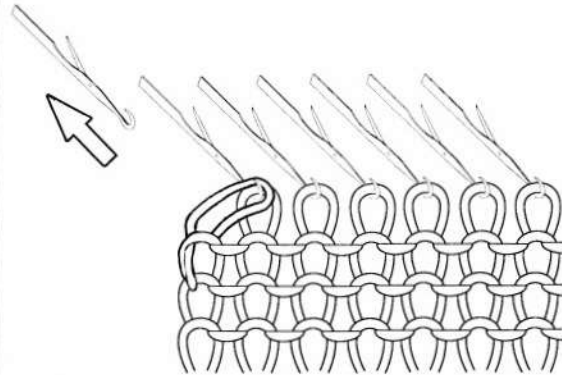


2. Push out the needle carrying the two stitches and lay the yarn in the needle hook as shown.

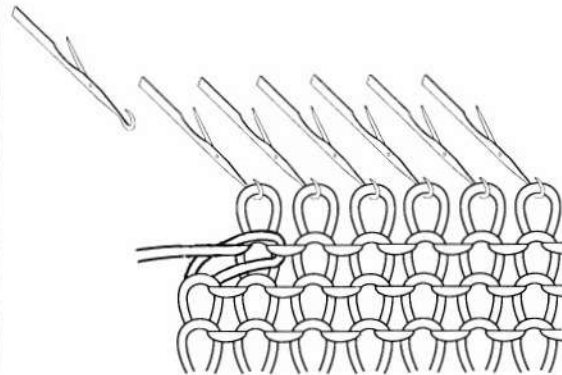


4. Transfer the new stitch onto the next needle. Repeat **steps 2 to 4** until you have decreased as many stitches as you want. Knit the rest of the row with the carriage in the usual way.

## TO DECREASE ONE STITCH AT A TIME

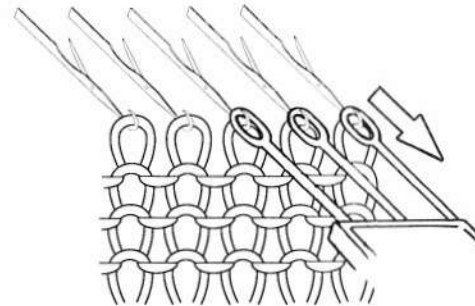


1. Transfer the end stitch onto the next needle and push the empty needle back to non-working position.

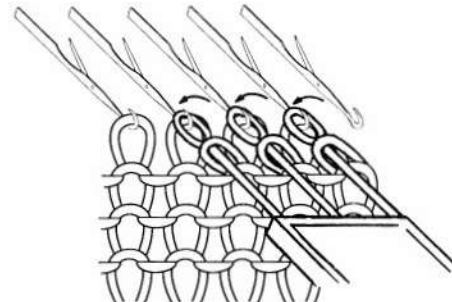


2. Continue knitting. One stitch will be decreased at the edge.

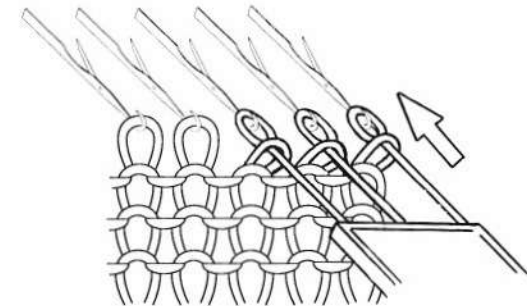
## TO DECREASE FULLY FASHIONED



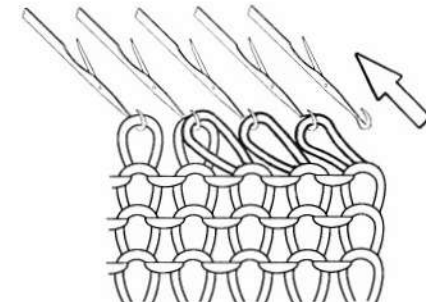
1. Hang the transfer tool on the last three needles and pull them out so the stitches slide behind the latches.



3. Move the transfer tool one needle inwards and hook the three stitches back onto the needles.



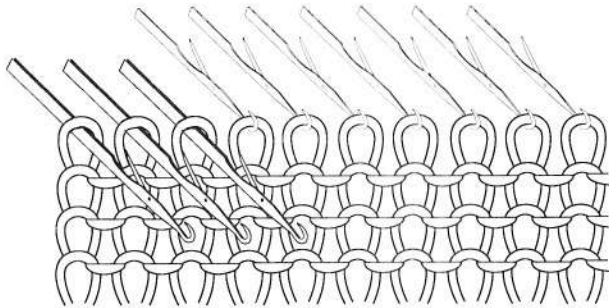
2. Push the needles back so the stitches slide onto the tool. Then lift the tool from the needles.



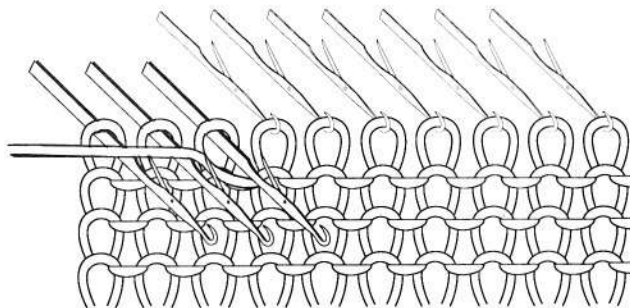
4. The fourth needle now carries two stitches. Push the empty needle back into non-working position and knit the row.

## TO DECREASE USING HOLDING POSITION

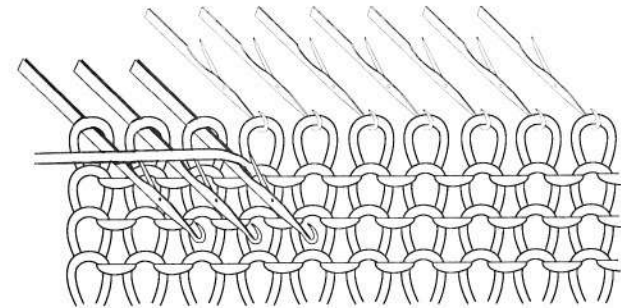
This is used when shaping necks, shoulder seams or darts. It leaves an open edge of stitches which you can use to knit on neck ribbing or graft into a neat shoulder seam. See the section "To Make Up".



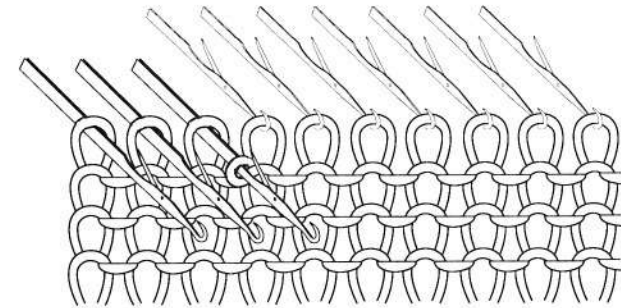
1. On the side **OPPOSITE** the carriage, push the required number of needles into holding position. Hold the knitting back with your hand when you do this.



3. Before you knit the next row take the yarn under the first needle in holding position as shown. This stops a hole forming. Make sure the yarn is still over all the other needles in holding position.



2. Knit the row. The needles in holding position will not knit.



4. Knit the row. Push more needles into holding position to decrease more stitches as required.

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**To decrease at both sides**, work on opposite edges every other row.

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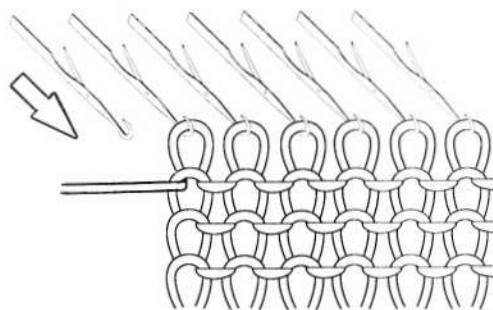
# KNITTING

# TO INCREASE

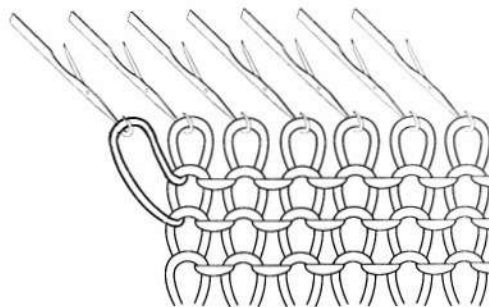
## TO SHAPE BY INCREASING

When you knit a garment, you need to shape the sleeves. This is normally done by increasing stitches at the ends of the rows. The following sections show you how to do this.

## TO INCREASE ONE STITCH (CARRIAGE SIDE ONLY)

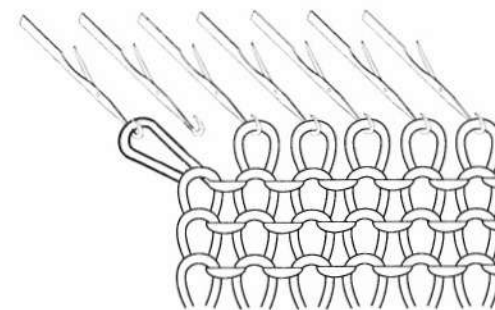


1. Push into working position an extra needle on the CARRIAGE side. Make sure the latch is open and the yarn is under the needle.

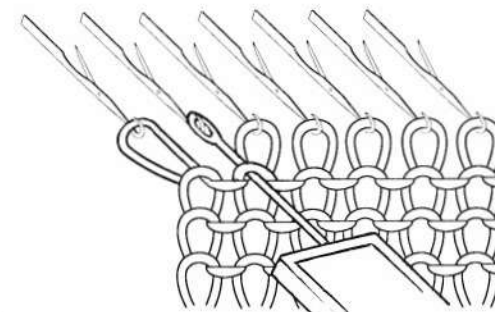


2. Knit a row in the usual way. A new stitch will be formed.

## TO INCREASE ONE STITCH (BOTH SIDES)

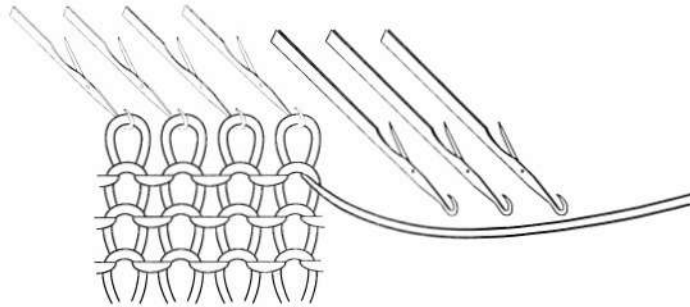


1. Transfer the end stitch onto the next needle.

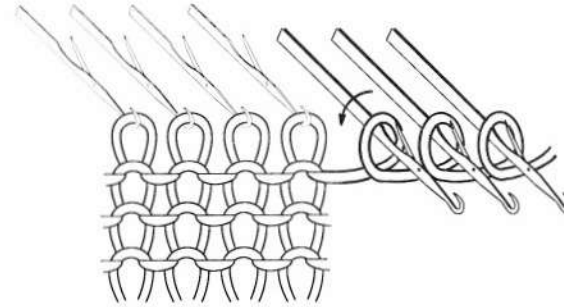


2. Pick up the loop below the second stitch and place it on the empty needle. Knit the next row.

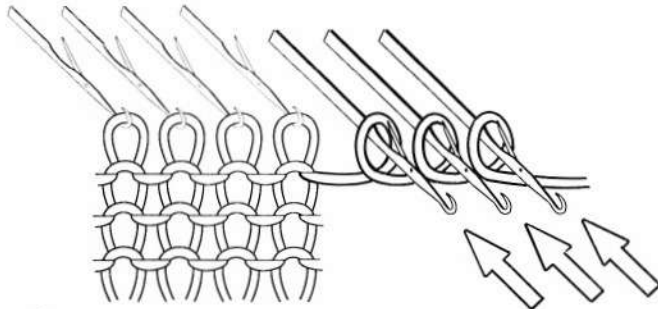
## TO INCREASE MORE THAN ONE STITCH (ON THE RIGHT)



1. Start with the carriage on the right. Push forward to holding position the number of needles to be increased on the CARRIAGE side.

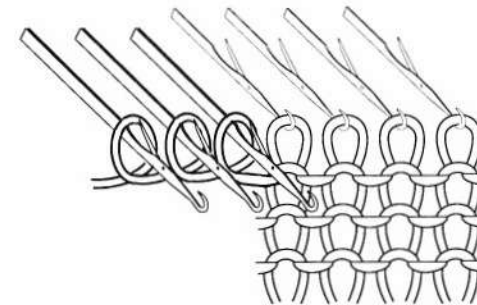


2. Wind the yarn anti clockwise round the needles. Push each loop back against the needle bed.



3. Push the needles back to forward working position. Make sure all the latches are open. Pull back all the slack yarn through the carriage and knit the row. Knit two rows carefully, pulling down on the new stitches if necessary. Hang a weight on the new stitches if required.

## TO INCREASE (ON THE LEFT)



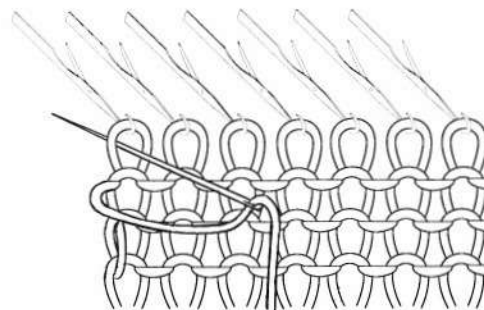
To increase on the left, have the carriage on the left and wind the yarn clockwise round the needles.

## TO CAST OFF

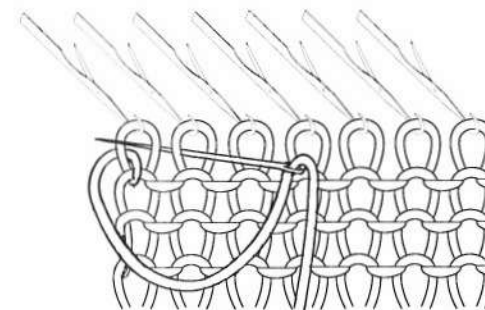
When you have finished knitting, you may need to cast off. This will leave you with a finished closed edge. There are several ways to cast off which give you different types of finish. The two most useful ways are Back Stitch and Chain Stitch.

Back Stitch gives a more elastic edge than Chain Stitch. You can use Chain Stitch to cast off just a few stitches when you want to decrease at an edge, or to cast off the whole row.

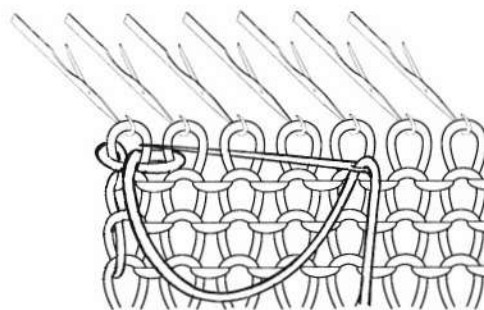
## TO CAST OFF BACK STITCH



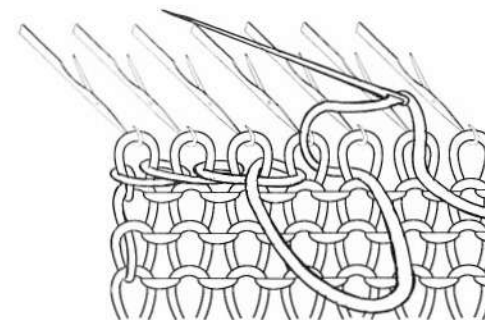
1. Unthread the carriage leaving a length of yarn about three times the width of the knitting to be cast off. Thread up a darning needle. Insert it into the first stitch in the row and pull the yarn through.



2. Insert the needle through the second stitch and pull it out through the first stitch.

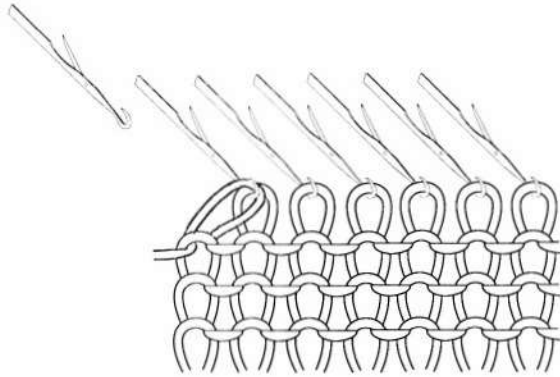


3. Insert the needle through the third stitch and pull it out through the second stitch.

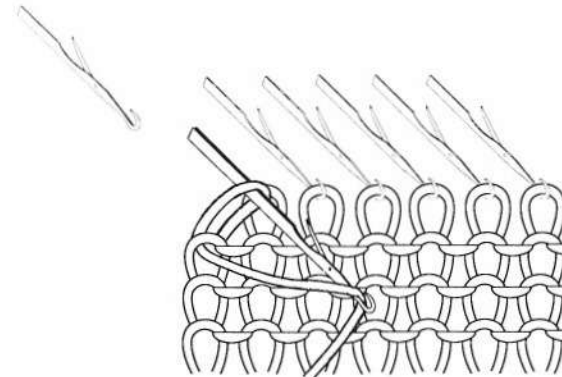


4. Continue in this way until you reach the last stitch. Fasten off the yarn by going through the last stitch twice.

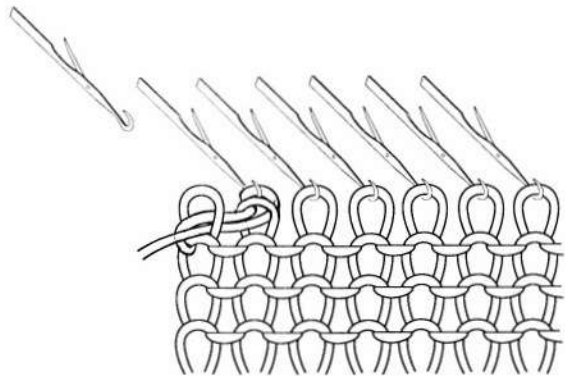
## TO CAST OFF CHAIN STITCH — ALSO KNOWN AS DECREASING ACROSS THE ROW



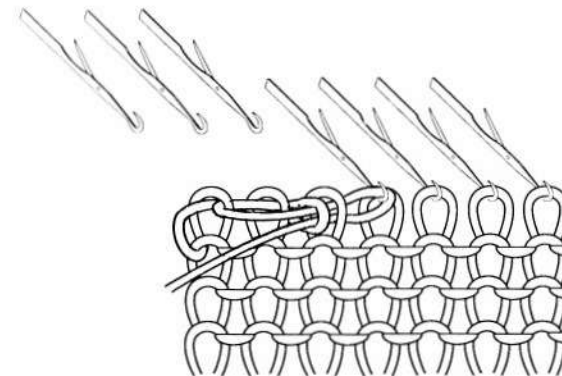
1. Unthread the yarn from the carriage. Transfer the end stitch on the carriage side onto the next needle. Then push the empty needle back to non-working position.



2. Push out the needle carrying the two stitches. Then lay the yarn in the needle hook as shown.



3. Push the needle back to form a new stitch. Make this new stitch slightly bigger than the main knitting. This will ensure the cast off edge is not too tight.



4. Transfer the new stitch onto the next needle. Repeat steps 2 to 4 until the row is cast off. Knit the end of the yarn through the last stitch twice to fasten it off.



## TO KNIT RIB AT THE END

### Simple Method

When you have finished knitting the back of the garment, rehang the first row of main knitting on the needles (without removing the weighted hem). To knit a 1x1 rib you hang the main knitting on every other needle, and to knit a 2x1 rib you hang the stitches on every two needles as shown in the diagrams.

Knit the rib and latch up. End by casting off Back Stitch and remove the hem and waste knitting. You can then knit the front of the garment.

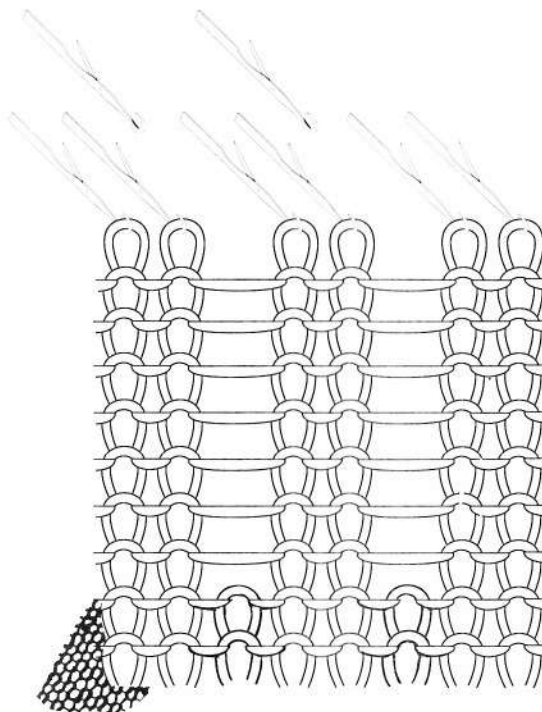
Always rehang the knitting with the wrong side (purl side) facing you and the waste knitting and hem hanging down behind. To keep the hem hanging level while you rehang the stitches you can first replace a few stitches at both ends and in the middle.

### Advanced Method

If you want a very tight rib it must be knitted over fewer needles than the main knitting. To do this, you rehang the first row of main knitting on the number of needles needed for the rib. Rehang them on every needle. To lose the extra stitches, put two stitches on several needles spread equally across the row. The pattern will tell you how many stitches are needed for the rib.

The hem and waste knitting should be left hanging down behind as for the simple method.

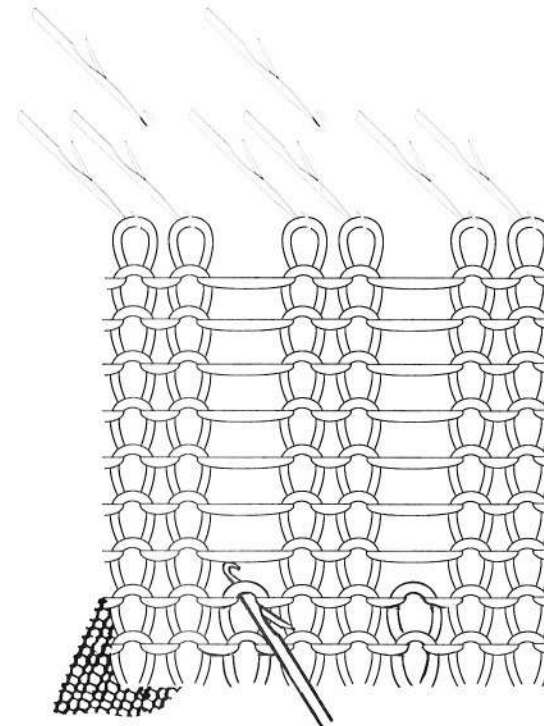
Now knit one row on every needle. Next, for a 1x1 rib, thread every other stitch off onto a waste piece of yarn. Put the empty needles back into non-working position and knit the rib. Latch up and cast off Back Stitch.



## TO KNIT RIB

1. Rehang the first row of main knitting on the needles leaving every third needle un-hooked. The weighted hem and waste knitting should hang down behind.

Knit the number of rows required for the rib.



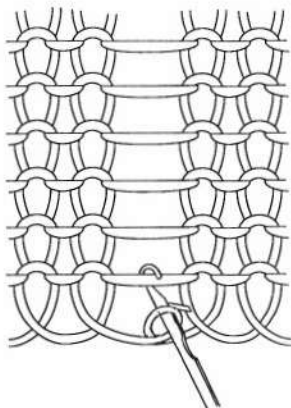
2. Use the latch tool to latch up the ladders. Hold the latch tool level and square to the knitting. Hook the last stitch onto the empty needle.

Repeat for all the ladders. Cast off using Back Stitch method and remove the waste yarn.

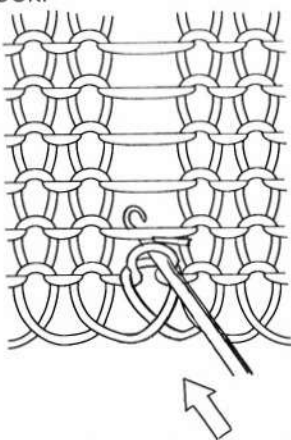
# KNITTING

# TO KNIT RIBBING

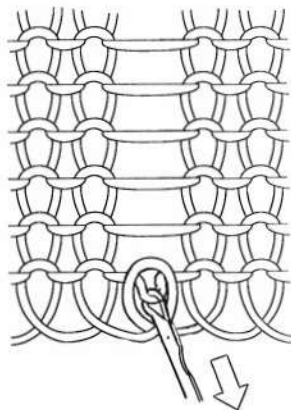
## HOW TO LATCH UP



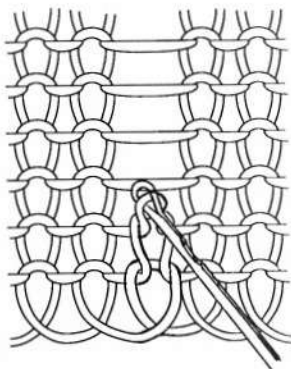
1. Put the latch tool into the bottom stitch so the stitch goes behind the latch and catch the thread above the stitch in the hook.



3. Push the latch tool back so the new stitch goes behind the latch and catch the next cross thread in the hook.

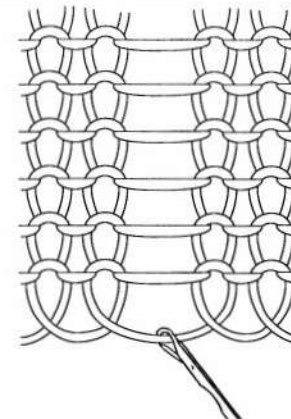


2. Pull the cross thread through to form a new stitch.

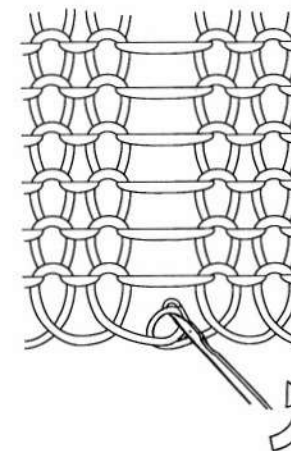


4. Pull the cross thread through to form a new stitch. Proceed up the ladder like this and hook the top stitch onto the empty needle.

## CLOSED EDGE CAST ON



1. Put the latch tool over the bottom bar of yarn with the hook down.



2. Twist the tool anti-clockwise to form the bottom stitch, then latch up as normal.

## KNIT RIB AT BEGINNING

To knit the rib at the beginning you start by doing a Closed Edge Cast On. Leave every other needle in non-working position for a 1x1 rib, or every third needle for a 2x1 rib, as shown on the preceding page.

Knit the rib and latch up, making sure you create the bottom stitch as shown on the preceding page by twisting the hook.

When you have knitted the rib you can then just continue to knit the main body of the knitting in the normal way.

## HAND KNIT RIB

You can handknit your ribs if you want. To handknit the rib last, just pick up the first row of main knitting stitches onto hand knitting needles and knit the rib.

To handknit the rib first, after knitting the rib knit two rows of stocking stitch with a larger size needle and then hang these stitches onto the needles with the wrong side (purl side) of the knitting facing you. Hang the cast on hem and start knitting normally.

## TO KNIT THE RIB SEPARATELY AND ATTACH LATER

You might find it convenient to knit the ribs separately and attach them later to the main knitting. To attach the ribs and main knitting after they have been knitted separately you can do the following:

- a. push the needles into forward working position and rehang the main knitting on the number of needles required for the rib. Hang the knitting with the right side (knit side) facing you. Push the stitches behind the latches as you go to stop them coming off the needles.
- b. rehang the ribbing stitches into the hooks. Then carefully pull each needle back so that the rib stitches are knitted through the main knitting stitches. Pull down on the knitting hard to form the stitches.
- c. cast off Back Stitch to join the seam.

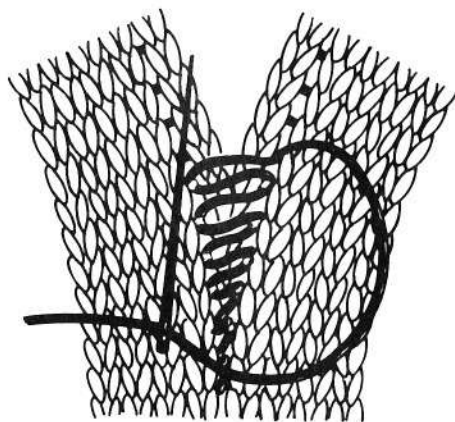
## KNITTING

### BLIND STITCH

This stitch is used for joining side seams, sleeve seams, ribs and bands. Use the same yarn as the main yarn and work on the right side of the knitting.

Pick up the loop between the first two stitches at the edge of one piece and pull the yarn through. Then pick up the loop between the first two stitches at the edge of the other piece.

Continue in this way. As you pull the yarn the seam will close up.

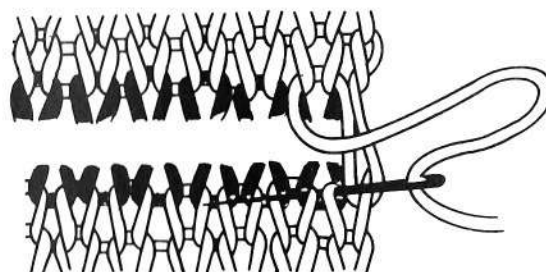


### GRAFTING

This stitch is used to join together two open edges. For example two edges where you have cast on with waste yarn. The join is totally invisible.

Use the same yarn as the main yarn. Bring it out through the end stitch on one piece and in through the end stitch on the other piece. Then take it in the next stitch on the first piece and out the neighbouring stitch on the first piece. Then across to the second piece and in the next stitch and out the neighbouring stitch.

Proceed like this across the seam.



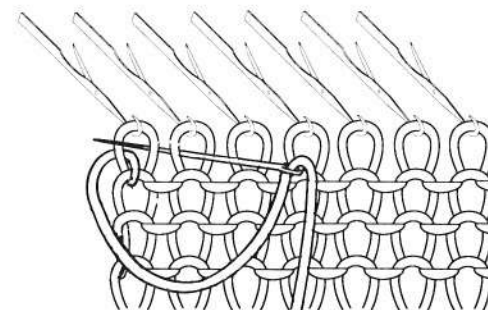
## JOINING SEAMS

### BACK STITCH

This is the stitch to use if you join seams on the needle bed.

Hang the stitches of one seam on the needles. Push them behind the latches. Now hang the stitches of the second seam in the needle hooks and draw them through the stitches of the first seam.

Cast off the row of stitches on the needles using Back Stitch method. See page 22.

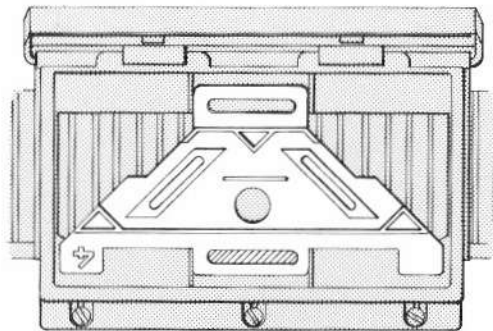




# HAND YARN FEED METHOD FOR PICTURE KNITTING

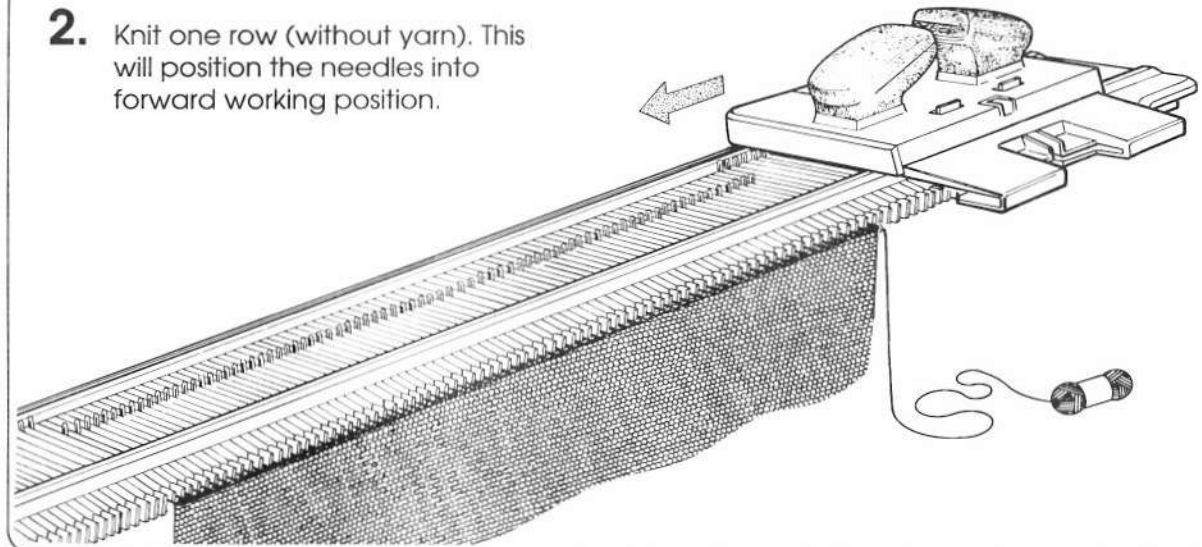
To knit pictures using two or more coloured yarns in the same row you can feed the yarn by hand. This method is known as intarsia knitting. See page 30. It is very easy to do with the Elite.

To start, cast on as shown in Quick Start and knit as many rows as you require in plain knitting. When you want to start knitting your picture **FIRST UNTHREAD THE CARRIAGE**. When knitting pictures 'intarsia' always hang the knitting weights on the edges of your knitting. Move them up approximately every ten rows.

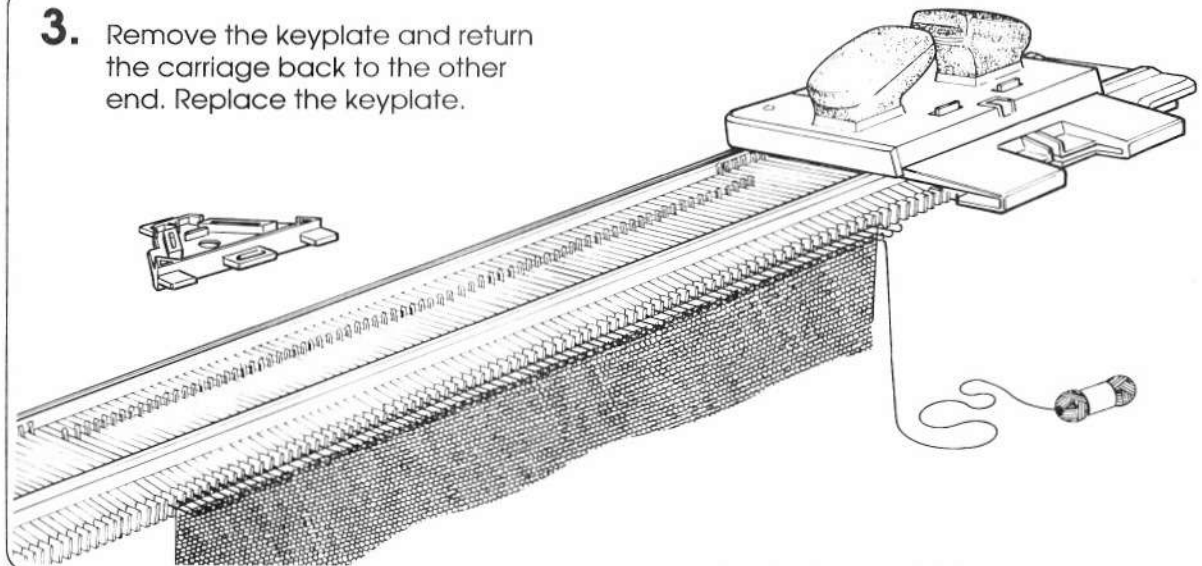


1. Turn the keyplate round as shown. Make sure the slot goes over the bollard on the carriage.

2. Knit one row (without yarn). This will position the needles into forward working position.

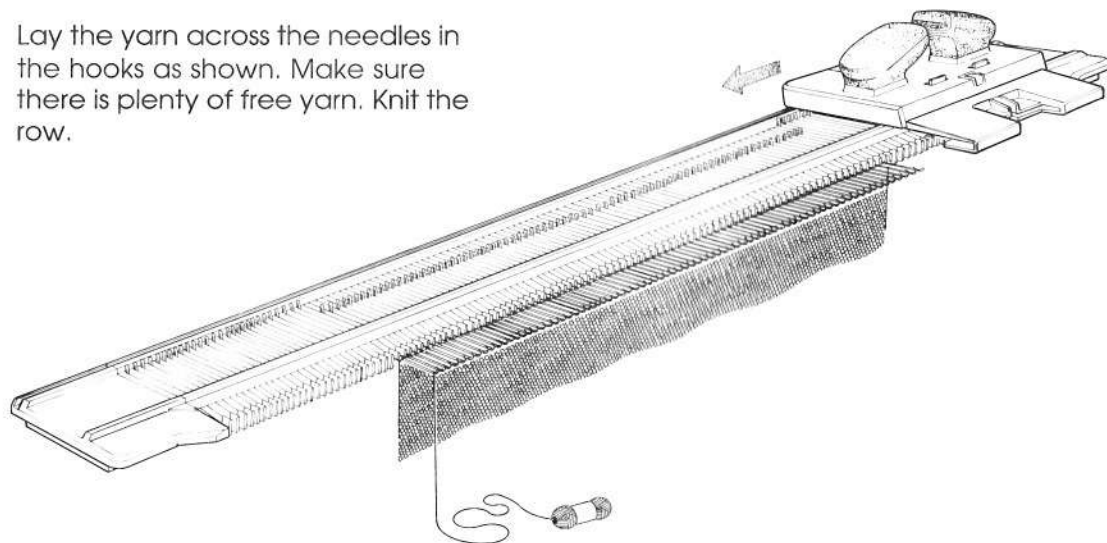


3. Remove the keyplate and return the carriage back to the other end. Replace the keyplate.



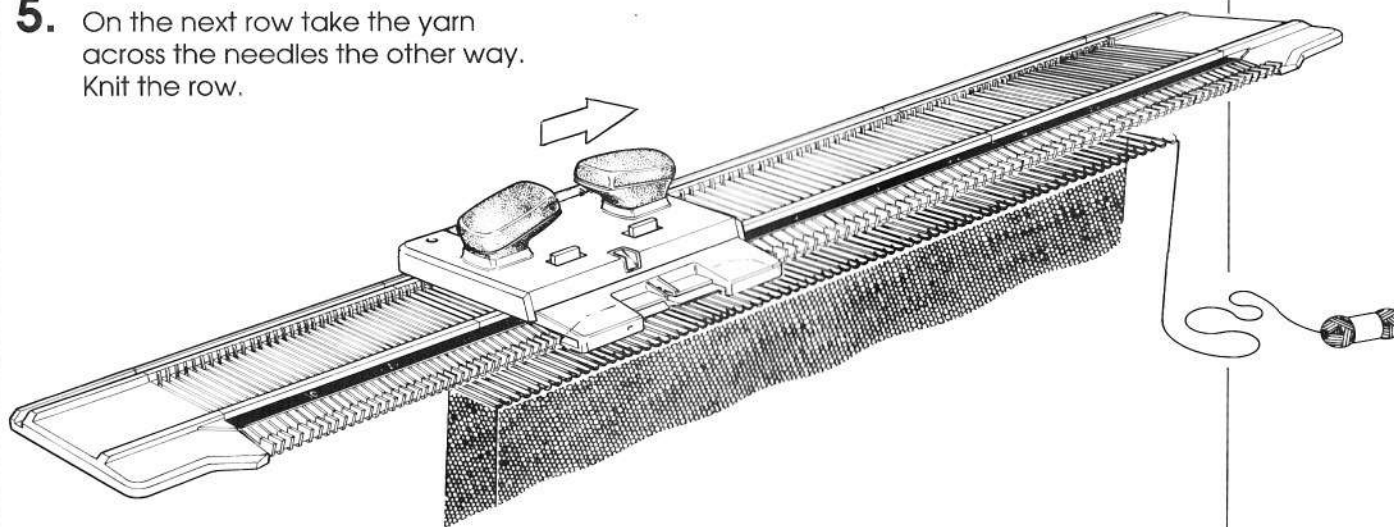
## HAND YARN FEED METHOD FOR PICTURE KNITTING

- 4.** Lay the yarn across the needles in the hooks as shown. Make sure there is plenty of free yarn. Knit the row.



**TO KNIT PICTURES  
SEE INTARSIA  
ON INSET PAGE**

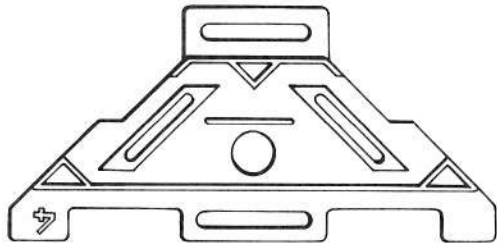
- 5.** On the next row take the yarn across the needles the other way. Knit the row.



## INTARSIA

Intarsia is also known as Picture Knitting. It lets you knit shapes or patterns with two or more colours in a row without any “floats” across the back of the knitting (see Fair Isle).

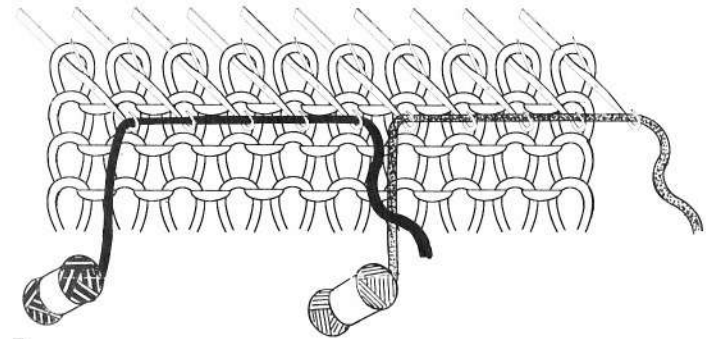
### BEFORE STARTING YOUR PATTERN



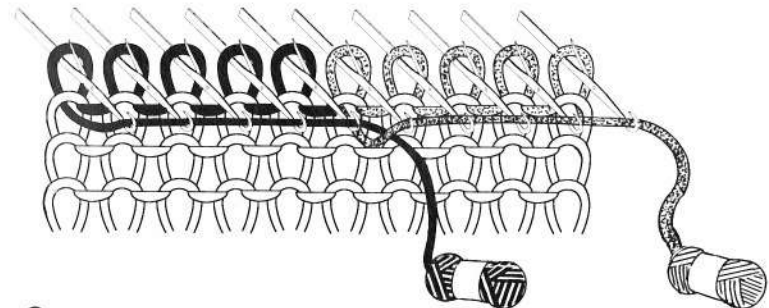
Turn the keyplate round to knit Intarsia. See page 28. Hand Yarn Feed method.

#### KEY BLOCKS

When knitting Intarsia with keyplate 7 and 8 you do NOT need the keyblocks.



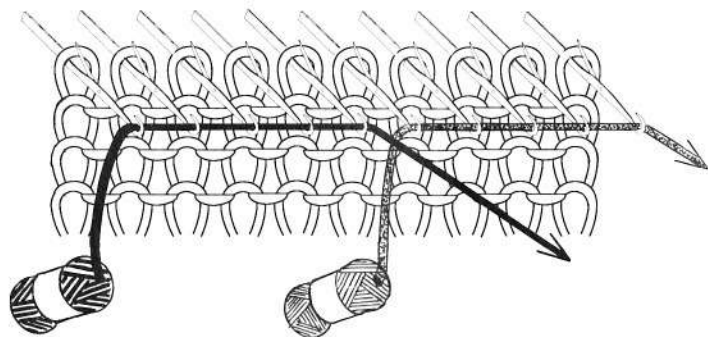
1. Following your pattern chart, lay the different colour yarns across the needle hooks. Note that the loose ends must be on the carriage side and the balls of yarn away from the carriage.



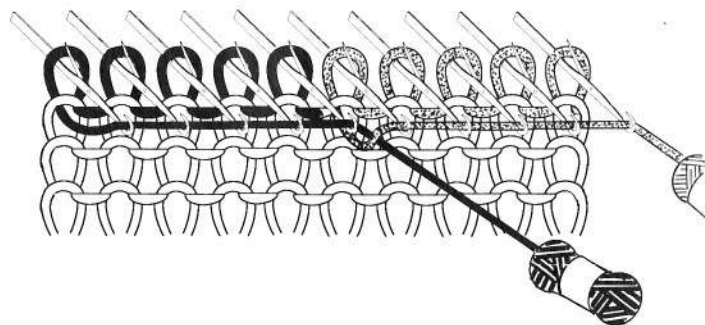
3. Now lay the yarns back across the needles in the other direction. Cross over the yarns, between and underneath the needles where the colours change. This will stop holes forming.

## PATTERN STITCHES

## SLIP STITCH & GARTER STITCH



2. Check there is plenty of yarn pulled out of the balls. Then hold the loose ends at a downward angle and knit the first row slowly.

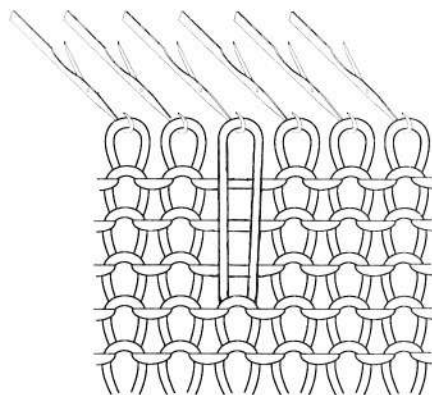


4. Hold the free ends of the yarn at a downward angle, but let the yarn run freely through your hands as you knit the row.

To close the hole on the first row, use the latch tool to pull the loose end through the neighbouring loop.

### SLIP STITCH

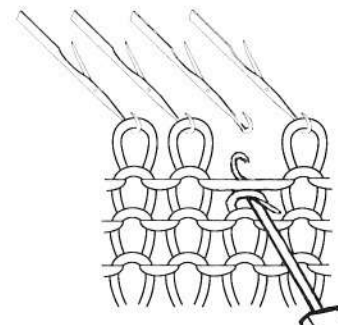
You can knit many different creative types of stitch patterns using the basic principle of the slip stitch. Examples of these are butterfly stitch and honey comb stitch. You can also combine it with rows of colour.



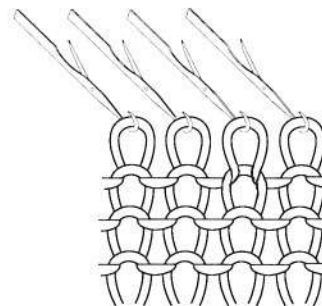
1. Insert the transfer tool into a stitch three or four rows down. You can use the single, two or three prong tool. Let the stitches ladder down to the tool. Lift up the stitch and put it on the empty needle (or needles if you have used the two or three prong tools). You can repeat this at regular intervals along the row to create a pattern that looks good on both sides of the knitting.

### GARTER STITCH

This can be very effective as groups of stitches or complete rows.



1. Insert the latch tool into the stitch below the one on the needle and let the stitch ladder down.

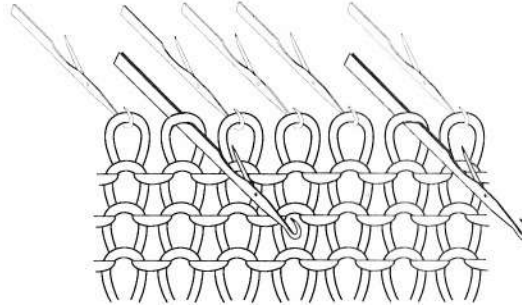


2. Catch the bar of yarn of the dropped stitch, latch it up and replace it on the empty needle. This produces a purl stitch.

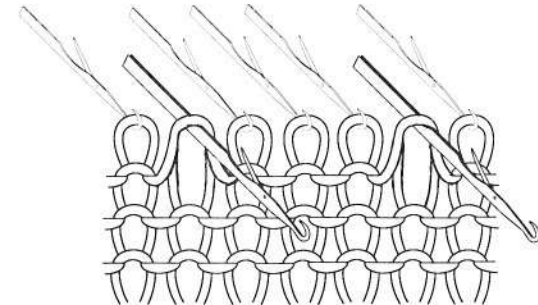
## FAIR ISLE

Fair Isle is also known as Jacquard knitting. It is a way of knitting patterns with two or more colours in a row. The unused colour is stranded behind the one being knitted to give a "float". The float can be knitted in on the purl side if required. The pattern appears on the right side (knit side) of the knitting.

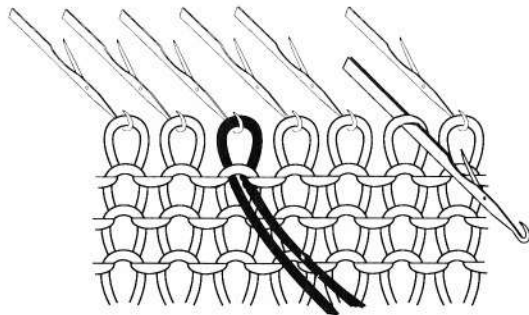
With Fair Isle knitting, the main colour is knitted first and the contrast pattern colour knitted in second by hand. A good tip is always to knit the contrast colour in the same direction as the main colour.



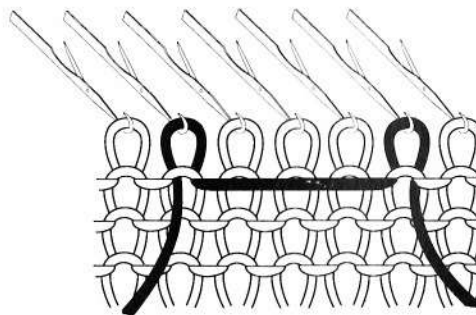
1. Select the needles which are to knit the contrast colour stitches and push them into holding position.



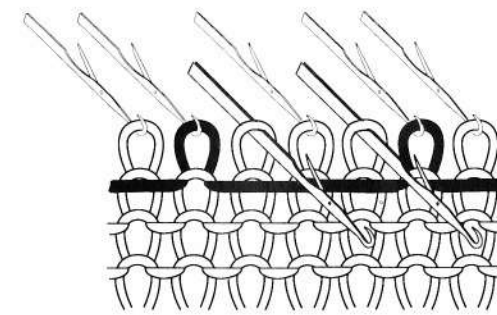
2. Knit a row with the main yarn in the usual way. The needles in holding position will not have knitted.



4. Push the needle back by hand to knit in the coloured stitches. Make sure the stitches are the same size as the main knitting.



5. Lay the yarn in the next needle in holding position and knit it back in. Proceed along the row like this until all the needles in holding position have been knitted in.

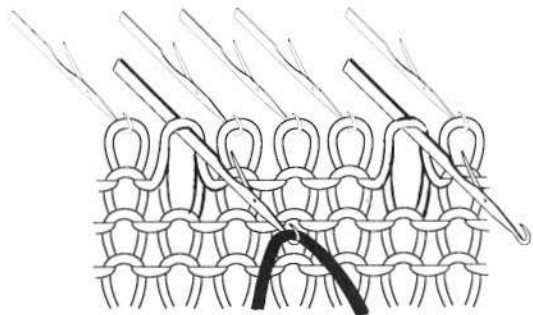


6. Before knitting the next row, push the needles that are to carry the pattern stitches into holding position. Then knit the row in the usual way. Needles in holding position will not have knitted.

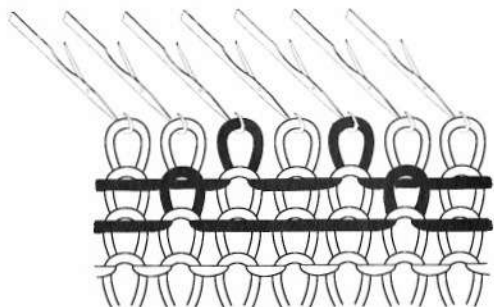


## PATTERN STITCHES

## FAIR ISLE

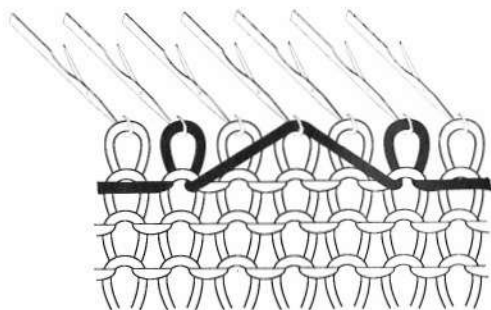


- 3.** Lay the contrast colour in the first needle in holding position (it is best to put the ball of yarn in your lap when you do this.).



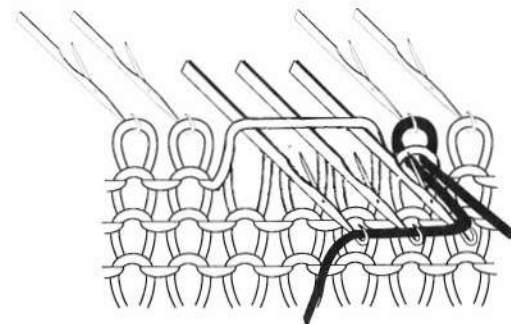
- 7.** Knit in the contrast colour yarn one needle at a time.

### HOW TO KNIT IN THE FLOATS



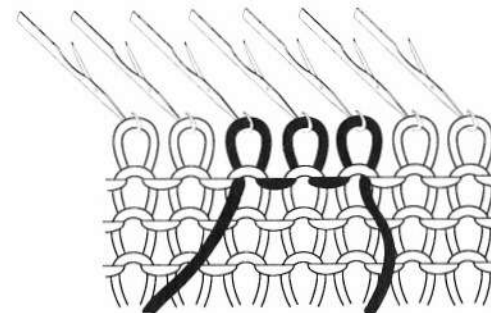
The floats are the loops of stitches between the pattern stitches. It is advisable to knit in any long floats. To do this, just hook them into a needle hook. The float will be knitted in on the next row and will not show at the front of the knitting.

### HOW TO KNIT BLOCKS OF STITCHES



Blocks of pattern stitches can be knitted just like individual stitches.

### HOW TO KNIT MOTIFS

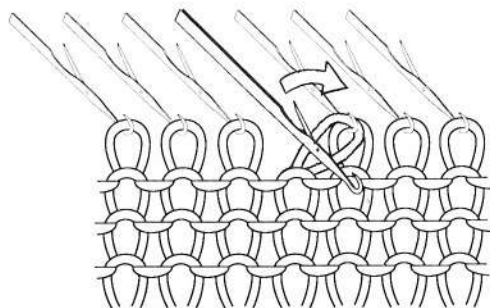


To knit motifs, use separate balls of yarn, to prevent getting long floats. Note that you must wind the yarn round the previous needle each row to link the contrast colour yarn to the main knitting.

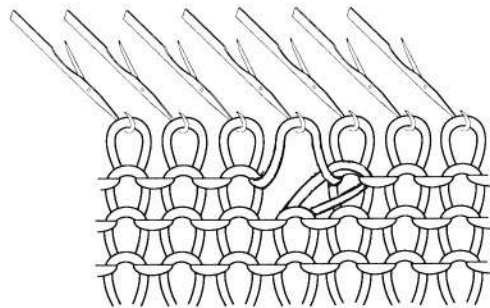
## LACE AND BUTTON HOLES

Use these stitches to knit lace designs on a sweater or dress, and to knit eyelets for button holes or to thread ribbon through.

### SINGLE STITCH EYELET

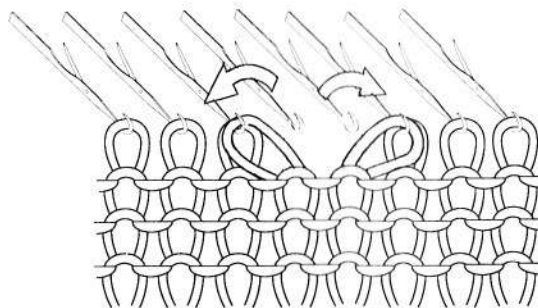


1. Transfer the stitch onto the next needle. Then push this needle into forward working position, so that both stitches go behind the latch. Leave the empty needle in working position with the latch open.

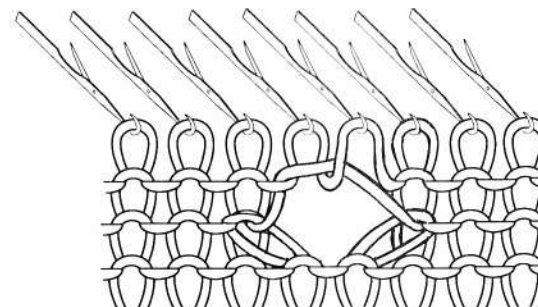


2. Continue knitting and a hole or eyelet will be formed.

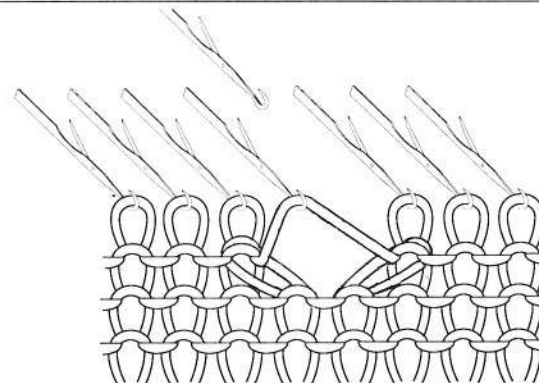
### DOUBLE STITCH EYELET



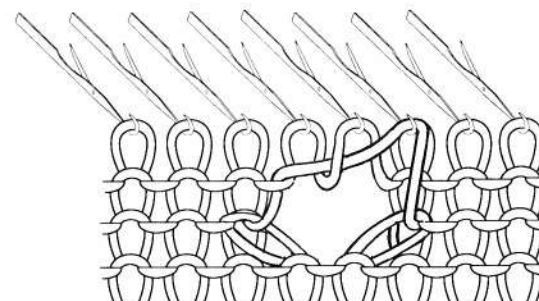
1. Transfer two stitches onto their neighbouring needles as shown.



3. Push the needle in non-working position into forward working position with the latch open. Knit one row.



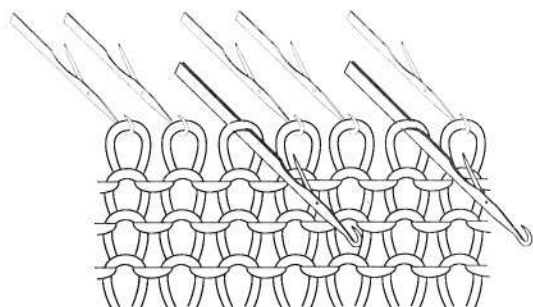
2. Leave one empty needle in working position with its latch open, and the other empty needle in non-working position. Knit one row.



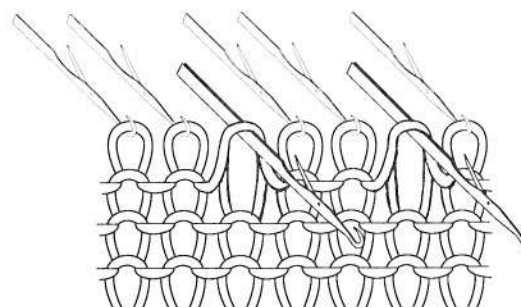
4. Pick up the yarn crossing the eyelet with the transfer tool and place onto the needle as shown.

## TUCK STITCH

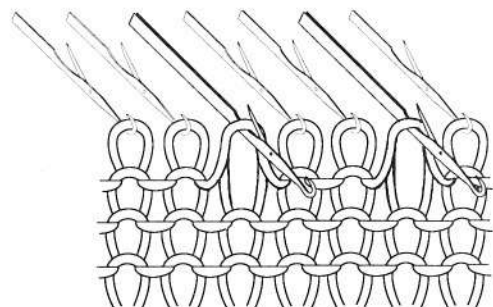
Tuck stitches create an attractive textured effect on the purl side of the knitting. You will find that the finer the yarn the more rows you can tuck into one needle. Add extra weights or pull down on the knitting if you are tucking over more than one row.



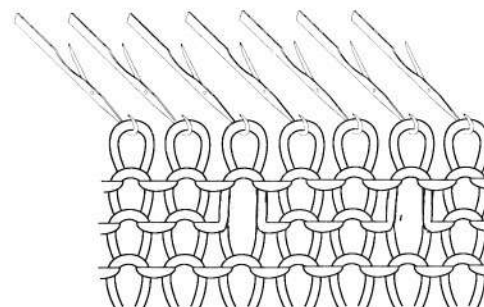
1. Push needles into holding position and knit a row.



2. The needles in holding position will not have knitted and the yarn will be carried over.

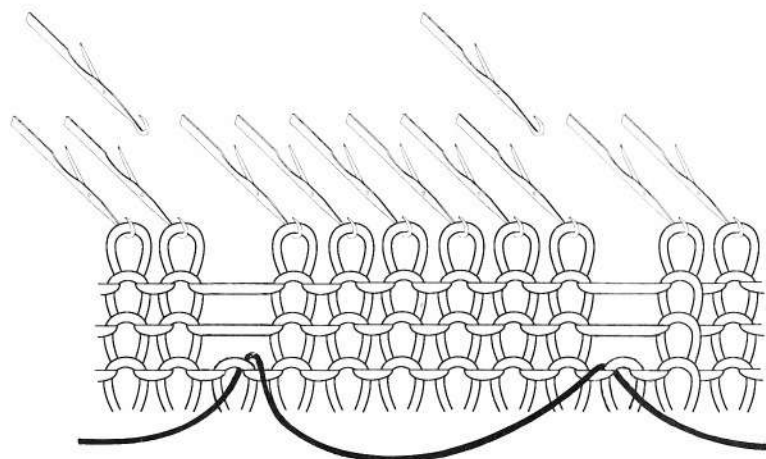
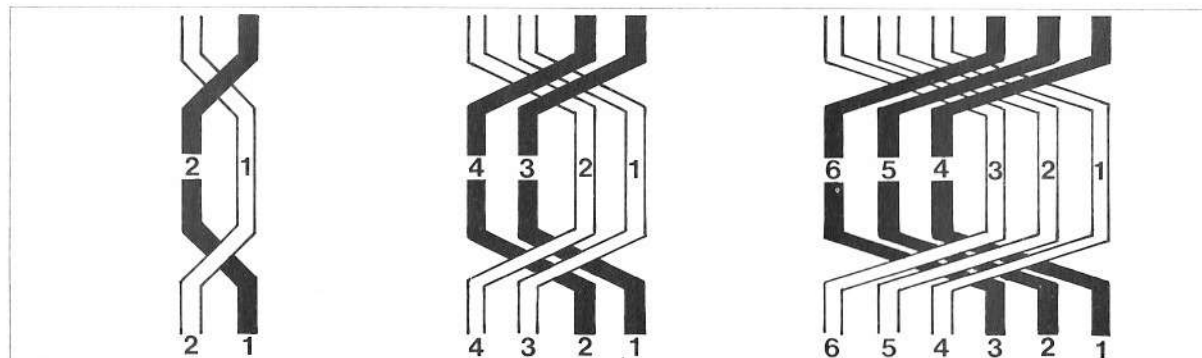


3. Push the needles back to forward working position. Make sure the latches are open.

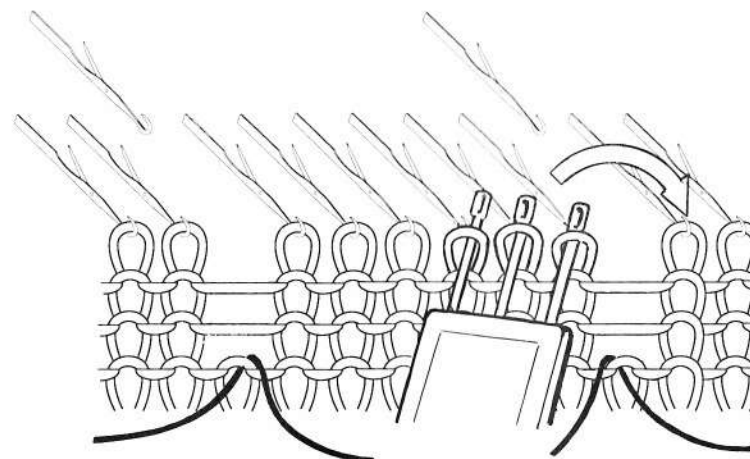


4. Knit a row (pull the knitting down if you have knitted more than one row).

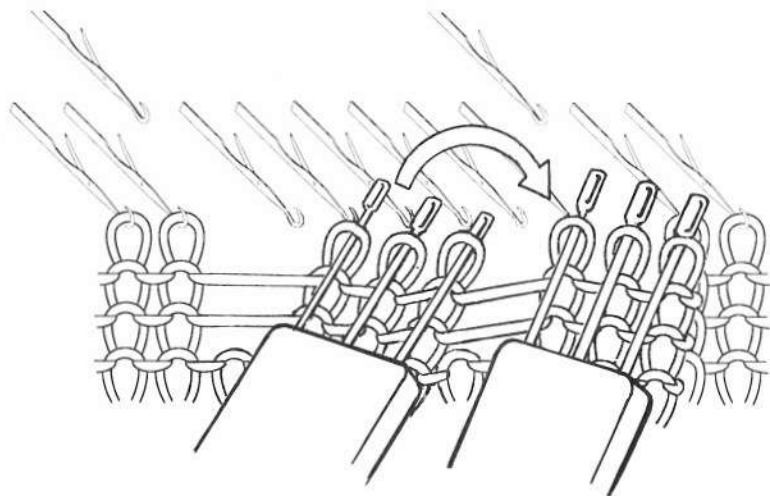
A **cable** is created by crossing over stitches so the effect on the right side of the knitting (knit side) looks like a rope, hence the name cable. Normally the crossing over is done at regular intervals e.g. every 4 or 6 or 8 rows. But the crossing over can be done at irregular intervals and you can even make uneven cables e.g. crossing 3 stitches over 2.



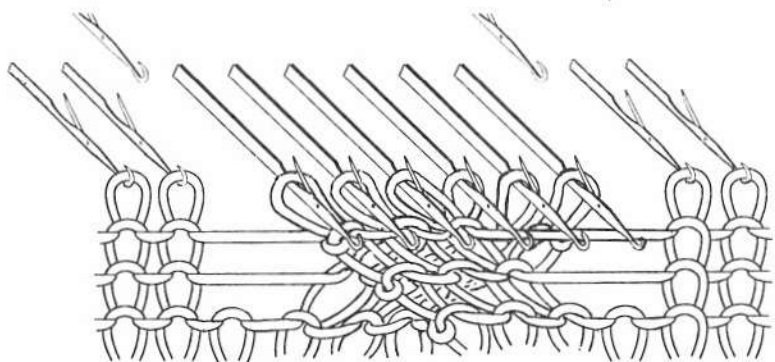
1. Remove onto waste yarn one stitch each side of the six stitches to be cabled and push the two empty needles into non-working position. Knit two rows.



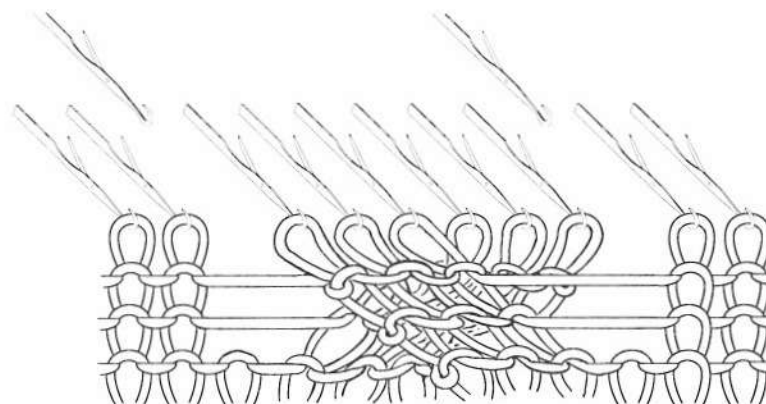
2. Using the transfer tool, unhook the three right-hand stitches to be cabled and hook the transfer tool onto the next needle on the right to hold it.



- 3.** Using the other transfer tool, transfer the three left-hand stitches onto the empty right-hand needles.



- 5.** Push into forward working position the six needles used for the cable and knit the next row slowly.



- 4.** Now transfer the three right-hand stitches onto the empty left-hand needles.

### TO HELP WHEN CABLING

Crossing stitches over puts a strain on the yarn. Some yarns are more elastic than others e.g. wool is more elastic than nylon, orlon or acrylic. To help reduce the strain and give enough yarn to cross over, let a ladder run down either side of the stitches which will form the cable (or even let two stitches ladder down either side for thicker or non elastic yarns).

When you have finished you can either leave the ladder, (which will have closed up), or latch up the ladder to give a purl stitch. If you are going to leave the ladder, transfer the bottom stitch to the next needle when you start the cable to stop it running.

It will be difficult to knit the first row after forming the cable. To make it easier, push the cable needles and their neighbours out to forward working position (make sure the stitches are behind the latches), and *knit the next row slowly*.



# HOW TO READ A PATTERN

A pattern is a set of instructions telling you how to knit the garment.

The instructions tell you both how to shape the garment and how to knit the pattern itself. The shape of the garment might be a round neck sweater or a cardigan for example and the pattern a picture or motif using different coloured yarns or a fancy stitch like a cable.

Follow the instructions row by row. It is a good idea to read the pattern right through to make sure you understand it before starting to knit.

## SIZES

The instructions will be written for several sizes. These sizes will be given in the basic information at the start of the pattern.

In the instructions the different sizes are written in a long line. The smallest size is given first followed by the other sizes in brackets. A typical instruction might be:

Cast on 73 (77, 81, 85, 89) stitches and knit 15( 8, 24, 28, 30) rows.

Decide what your size is from the basic information and then just follow the instructions for your size.

## BACK, FRONT, SLEEVES

The instructions will be in sections for each part of the garment, typically back, front and sleeves ending with making up (how to sew the pieces together).

## THE PATTERN

The instructions for the pattern may be shown as a picture. Each square represents a stitch. You just follow the picture changing the colour yarns as indicated.

## ABBREVIATIONS

The things that makes patterns look so complicated are the abbreviations. These are used to shorten the length of the pattern. All abbreviations should be explained at the start of the pattern.

Here are the common ones:

<b>st(s)</b>	=	stitches
<b>WP</b>	=	working position
<b>NWP</b>	=	non working position
<b>dec</b>	=	decrease
<b>HP</b>	=	holding position
<b>inc</b>	=	increase
<b>M</b>	=	main colour
<b>COL</b>	=	carriage on left
<b>A</b>	=	first contrast colour
<b>COR</b>	=	carriage on right
<b>B</b>	=	second contrast colour
<b>LHS</b>	=	left hand size
<b>C</b>	=	third contrast colour
<b>RHS</b>	=	right hand side

## BASIC INFORMATION

At the beginning of the pattern there will be some essential basic information:

- the sizes the pattern is written for
- the actual size of the finished garment (larger than your bust/chest to allow for ease)
- the yarn you will need
- tension or gauge
- the keyplate to use

MEASUREMENTS						
<b>To fit bust</b>	<b>32</b>	<b>34</b>	<b>36</b>	<b>38</b>	<b>40</b>	<b>in</b>
	81	86	91	97	102	cm
<b>Actual size</b>	<b>36</b>	<b>38</b>	<b>40</b>	<b>42</b>	<b>44</b>	<b>in</b>
	91	97	102	117	112	cm
<b>Length of body</b>	<b>22<sup>1</sup>/<sub>2</sub> in / 57 cm</b>					
<b>Length of sleeve</b>	<b>19 in / 48 cm</b>					
MATERIALS						
<b>50g balls ROBIN Aran</b>						
M Natural	5	5	6	7	8	
A Silver Birch	5	5	6	6	7	
B Danube	3	3	3	4	4	
TENSION						
Use Keyplate 7 to give 16 sts and 21 rows to 4in/10cm						

# TO USE HAND KNITTING PATTERNS

If you can read a handknit pattern you can knit it on the BOND, providing it is in a suitable yarn. If the pattern has fancy stitches, make sure you can do them on your BOND.

First you must buy a ball of the correct yarn and knit a **tension square** to compare it with the tension (gauge) given in the handknit pattern. If you are not sure which keyplate to use, then knit several tension squares (using two or three different keyplates) to check them.

## 1. KNITTING A TENSION SQUARE

Cast on 40 stitches and knit 50 rows (if you want to check several keyplates then change keyplates and knit 50 rows with each keyplate).

Remove the knitting from the BOND and pull into shape by pulling down firmly from the top and bottom to close up the stitches.

Leave the knitting to relax for a few hours then pin it out on a towel, with pins every 2" (5cm) round the edges, without stretching it. Press the knitting according to the instructions on the ball band. Do not press acrylic or orlon.

Take a tape measure and count the number of stitches across 4" (10cm) and rows down 4" (10cm) in the middle of the square. Write these figures down. Compare them with the tension (gauge) given in the handknit pattern. Make sure this is also given over 4" (10cm).

## 2. CONVERTING THE HANDKNIT PATTERN

If the handknit and the BOND knit tensions (gauges) are identical, then just knit the pattern as instructed, just converting all the inches given for the lengths in the handknit pattern into rows for the BOND.

If the BOND tension (gauge) is different to the handknit tension (gauge) then you will need to make an adjustment. A pocket calculator will be useful when doing these simple sums.

### STITCH CONVERSION

Simply divide the BOND stitch tension by the handknit stitch tension and then use this figure to multiply the number of stitches given in the handknit pattern to get the BOND knit stitches.

#### Example

#### Suppose:

BOND tension (gauge) = 18 sts to 4" (10cm)  
Handknit tension (gauge) = 22 sts to 4" (10cm)

**Giving:**  $18/22 = 0.82$

Suppose the handknit pattern says cast on 110 stitches, you will multiply 110 by 0.82 to give the number of stitches to cast on with the BOND to get the same width of knitting.

**Cast on:**  $110 \times 0.82 = 90$  stitches

### ROW CONVERSION

Simply divide the BOND row tension (gauge) by the handknit tension (gauge) and use this figure to multiply the number of rows in the handknit to give the BOND knit rows.

#### Example

#### Suppose:

BOND tension (gauge) = 28 rows to 4" (10cm)  
Handknit tension (gauge) = 30 rows to 4" (10cm)

**Giving**  $28/30 = 0.93$

Suppose the handknit pattern says there are 24" from neck to hem (or 180 rows) then multiply 180 by 0.93 to give the number of rows to knit with the BOND to give the same length of knitting.

**Knit**  $180 \times 0.93 = 167$  rows

# QUESTIONS AND ANSWERS ABOUT KNITTING

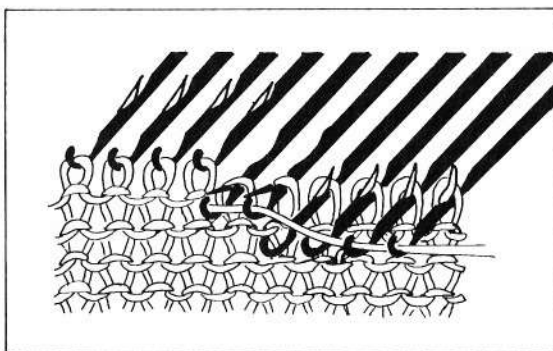
## WHAT IS KNITTING?

Knitting is fabric formed from rows of stitches. Each stitch is made from a loop of yarn.

## HOW ARE STITCHES FORMED?

When handknitting with traditional knitting needles, all the stitches are stored on one needle, then knitted off onto the other needle. The action of knitting them off produces the next row of stitches.

The BOND knits in a different way. It has a set of needles and each needle knits a stitch so the stitches of each row are stored on their own needle. This is why the BOND can knit so much faster. But in all other ways it is similar to handknitting.



As the carriage slides across, the needles pick up the stitches one by one. The knitted fabric grows from the needles.

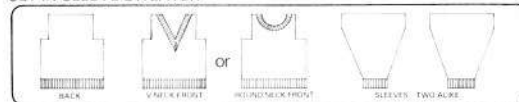
## HOW DO I KNIT A GARMENT?

You follow a pattern to knit a garment. A pattern is a set of instructions that tell you what to do row by row. See the section on "How To Read a Pattern". It is easy to learn to follow a BOND pattern and knit it on the BOND. That is why the BOND is so good if you can't handknit.

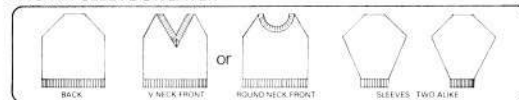
## HOW ARE DIFFERENT GARMENTS MADE?

Garments are made from simple basic shapes like these

SET IN SLEEVE SWEATER



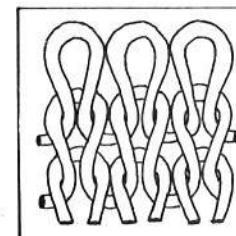
RAGLAN SLEEVE SWEATER



You shape the knitting by increasing or decreasing stitches as you knit rows. The pattern tells you when to do this to get the correct shape for your size. The length of the knitting is determined by the number of rows you knit and the width by the number of stitches. If you want to make the garment longer or shorter than the pattern, then you just knit more or fewer rows in a straight part of the garment where there is no shaping.

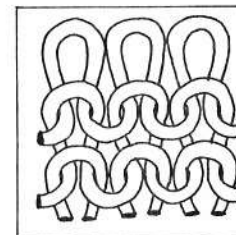
## WHAT IS THE FRONT AND BACK OF THE KNITTING?

The front (or plain side) of the knitting looks like this



RIGHT, FRONT or PLAIN SIDE

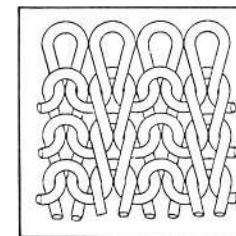
The back (or purl side) of the knitting looks like this



WRONG, BACK or PURL SIDE

## WHAT IS RIBBING?

Ribbing is created when you knit a plain and a purl stitch alternately across a row. It looks like this



A rib is more elastic than plain knitting and so is knitted on to the bottom of sweaters and round the wrist of the sleeves to make them tight.

### WHAT IS TENSION OR GAUGE?

Tension or gauge is the number of stitches and rows you knit to the inch (cm). Loose knitting has fewer stitches and rows to the inch (cm) than tight knitting. Loose knitting has big stitches and tight knitting has small stitches.

It is important that you knit the right tension or gauge when you follow a pattern if you want the garment size to come out right. The BOND Keyplate gives you the tension of your knitting and the pattern will tell you which one to use. A good idea is to knit a tension square or gauge square before you start if you are in any doubt. You can count the number of stitches and rows to the inch (cm) to check your tension or gauge.

### HOW DOES TENSION AFFECT THE SIZE?

Suppose you want your knitting to be 20" wide. If the tension is 24 stitches to 4" (10 cm) then you will need to cast on 24/4 x 20 stitches i.e. 120 stitches. If the tension was only 16 stitches to 4" (10 cm) then you would need to cast on only 16/4 x 20 stitches, i.e. 80 stitches to get the same width.

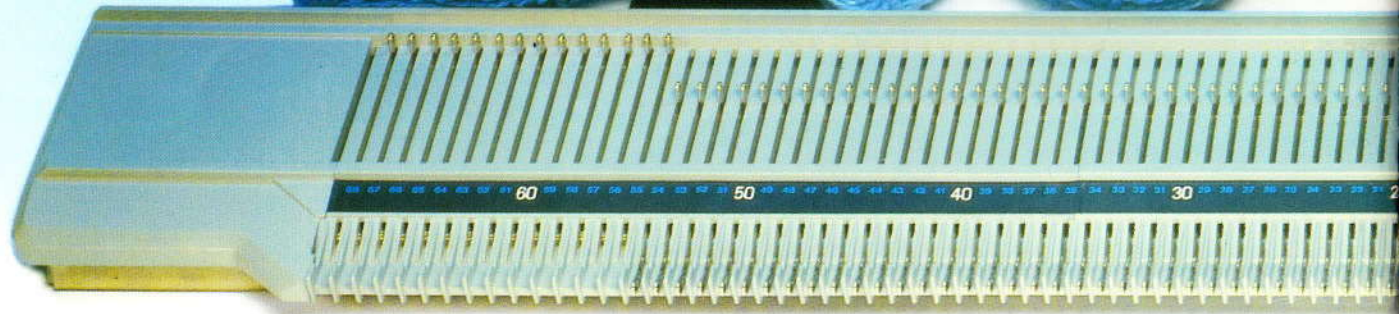
### PROBLEM SOLVER

- |   |   |
|---|---|
| 1. Difficult to knit first row.   | (a) Pull down hard on Cast on hem.<br>(b) Check problem 4(a).   |
| 2. Carriage jams on first cast on row.  | Check the hem is not caught in the front fairing.   |
| 3. Carriage jams at start of a row.   | Check a loop of yarn is not caught round bottom of the front fairing.   |
| 4. Needles jam in the front fairing. (you may need to remove the keyplate and unravel the row. See page (11.) | (a) Check needles are not jamming against the front edge of the front fairing making it difficult to knit.<br><br>(b) Check needles are not jamming in the bottom slot of front fairing.<br>(c) Check needle latch not caught on the side of front fairing yarn feed. |
| 5. Knitting caught in front fairing giving dropped stitches or jammed carriage.                               | Knitting needs more weight. Use knitting weights and move up every ten rows.  |

1 + 2 } finer  
 3 - 4 }  
 5 - 6 }  
 7 - 8 }  
 SPORT wt - 3 ply  
 double knitting -



Part No. B310



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