

USE ANY PATTERN ON YOUR KNITOMAT

HERE'S HOW!

Instructions written for two needle or circular knitting can easily be adapted to the KNITOMAT.

Almost all instructions written for two needle knitting give the lengthwise measurements in inches. For the KNITOMAT it is necessary to have lengthwise measurements in rows because it is difficult to measure the work accurately while it is on the KNITOMAT.

I would like to suggest the following method for changing two needle knitting instructions to instructions for your KNITOMAT.

1. Make a swatch to ascertain the stitch and row gauge.

Usually your knitting instructions will give you a stitch and row gauge upon which your instructions have been figured. It is necessary to simulate this gauge on the KNITOMAT so your garment will come out the right size.

TO MAKE A SWATCH cast on 40 stitches and knit 4", bind off the stitches. Stretch lengthwise to get the true gauge. It is wise to block the swatch before measuring the gauge. If you do not block your own garments, simply wet the swatch in cool water and let dry.

TO MEASURE THE STITCH GAUGE: lay a ruler vertically across the knitting on the right side (knit side) of the work. Put a pin at the inch mark and another pin at the 2 inch mark. Now put aside the ruler and stretch the work sideways and count the number of stitches in two inches. Divide by two. This will give you the number of stitches to the inch. Lay the ruler on the wrong side (purl side) horizontally, put a pin at the inch mark and another pin 2 inches below. Now put aside the ruler and stretch work lengthwise so you can count the rows between the pins. Divide by two and this will give you how many rows to the inch. Adjust YOUR STITCH SIZE CONTROL until your STITCH GAUGE in the swatch is the same as given in the instructions.

2. Whenever the lengthwise measurements are given in inches, multiply the number of inches times the number of rows you counted to an inch.
3. Change the instructions as shown in the following example:  
Instructions read: increase 1 stitch both ends every inch 3 times, then every 2" 3 times. If your row gauge is 12 rows to the inch you would write it this way; "increase 1 stitch both ends of rows 12, 24, 36, 60, 84, 108."

Knits with 180 needles in one motion

KNITOMAT Division of Lightco, Inc.

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606 South Oxford Avenue  
Los Angeles 5, California

4. If the stitch and row gauge are both given, make a swatch and adjust the stitch size control until you have the STITCH GAUGE AS GIVEN IN THE INSTRUCTIONS. If the row gauge does not match exactly, you still follow your instructions providing they are given in rows, only your overall length must be adjusted according to your specific row gauge.

If your instructions call for more stitches than you have needles on your KNITOMAT, make your garment in pieces and join together. This joining can be made so it cannot be detected (see P. 18, Paragraph P, KNITOMAT instruction book.)

When instructions call for picking up stitches around the neck to knit a border or collar, you can pick up the stitches with a crochet hook and put them on the needles of the KNITOMAT if you are knitting with a loose tension. If you are knitting with a tight tension, it may be necessary to pick up the stitches with a knitting needle and yarn (the same method used for two needle knitting) and after working a row by hand you can transfer the stitches to the needles of the KNITOMAT.

When the instructions call for the use of circular needles for making a circular piece such as a skirt, it is necessary to change your instructions so that the garment is made in panels and joined together (without a seam). (See KNITOMAT instruction book, P 18, Paragraph P).

1. Plain stockinette stitch skirt.  
Divide the number of stitches given for the entire skirt into an even number of panels.
2. Inverted panel skirt. For example a knit 40, purl 40, make each panel of 40 stitches separately and join. Any combination or number of stitches may be used.
3. Pattern stitch. Your pattern is usually expressed in a multiple of a certain amount of stitches. There are two different types of pattern.
  - a. The all-over pattern consists of the pattern repeated continuously.
  - b. The occasional pattern consists of a pattern inserted between the plain knitting.

If you are using the all-over pattern, the skirt should be made in two panels only. Shaping should be at the side seams only. If you are using an occasional pattern, panel should be joined where you have a plain stitch on each side. Shaping should be done on the plain knitting between the inserted patterns.

Keeping in mind these few guiding principles will enable you to use any knitting pattern that strikes your fancy. This opens up a whole new world of designs for the automatic knitting enthusiast.

*Beulah Andersen*

OPERATING INSTRUCTIONS

FOR

KNITOMAT HANDKNITTERS

MODELS:

STANDARD 150 NEEDLES  
DELUXE 150 NEEDLES  
DELUXE 170 NEEDLES

THIS MANUAL IS TO BE USED IN CONJUNCTION WITH INSTRUCTION  
BOOKLET BY BEST KNITTING MACHINE CO. LTD. ATTACHED.

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## HELPFUL HINTS

After receiving your KNITOMAT, wipe off with a rag the oil necessary for shipment. Your KNITOMAT is a precision made instrument, tolerances are very exact. Therefore, you will find that it works a little hard at first. As you continue to use the KNITOMAT it will loosen up.

CASTING ON: There are two methods shown in the book, with or without starting cloth. Most of our customers do not use the starting cloth. However, if you do want to have an unfinished edge for assembling two pieces, the starting cloth is preferable.

KNITTING: Never force your slide across. If it does not move easily, your stitch adjustment may be too tight for your yarn or your yarn may be caught. Check your yarn and you will find the difficulty.

Pull your first stitch a little forward until it is under the first latch, then lay your yarn over the latches in the hollow of the needle.

The holding of the yarn is of prime importance in knitting on the KNITOMAT. Be sure that the yarn is held tight enough to keep it in the hollow of the needles. If you hold the yarn too loosely, it will jump the needle and you will drop the stitches. Watch your yarn as you go across to be sure it is in the right place until you have achieved sufficient practice.

Whenever you have made some patterns, or not used your KNITOMAT for a while, be sure that all latches are open before you knit.

Practice on short pieces of different types of yarn until you feel yourself sufficiently adapt in the use of the KNITOMAT. Go slow until you have practice, try your easy yarns first. Yarns that are more difficult to knit by hand are more difficult on the KNITOMAT. Speed will come quickly with practice.

In setting your stitch gage, usually make the adjustment one size larger that is called for in your knitting book instructions. Each notch is equal to a jump of one on your knitting needles starting with a needle size "0". Make up a swatch first and determine whether you have the right amount of stitches per inch, increase or decrease your stitch gage as indicated.

## NOMENCLATURE OF KNITOMAT

- A. KNITTING FRAME
  - 1. Hosiery needle with opening and closing latches
  - 2. Slide
  - 3. Stitch or Gage Adjuster
- B. STARTING CLOTH
- C. SILK THREAD
- D. CROCHET HOOK
- E. PLASTIC PUSHER
- F. WOODEN LATCHED NEEDLE
- G. FASTENING CLAMPS
- H. VINYL COVER

### EXPLANATION AND OPERATION OF PARTS

- A. KNITTING FRAME: Frame of Knitomat can be lifted and affixed in a tilted position on all Custom Models, in order to facilitate work with crochet hook or latch needle on certain types of knitting.
  - 1. LATCH NEEDLE: Opens by pushing work back with plastic pusher and closes when slide is drawn across frame.
  - 2. STITCH OR GAGE ADJUSTER:
    - a. Standard Type: Move slide to either end of Knitomat. Loosen large plastic top knob. By pushing knob towards back of Knitomat, stitch gage will increase; by pulling knob towards front of Knitomat, stitch gage will decrease.
    - b. Micromatic Type (All Custom Models) Move slide to either end of knitter. Loosen large metal knob. To decrease stitch gage turn micromatic screw slowly to left; to increase gage turn slowly to right. Knob must be securely tightened before work is started.
- B. STARTING CLOTH: Knitting may be started with or without aid of Starting Cloth (See operating instructions).
- C. SILK THREAD : Used in connection with starting cloth only.
- D. PLASTIC PUSHER: Used mostly as aid in pushing work back against Knitomat.
- E. CROCHET HOOK AND WOODEN LATCHED NEEDLE: Necessary for certain patterns, especially ribbing, as well as to pick up dropped stitches, increasing and decreasing, etc.

- F. FASTENING CLAMPS: Used in some models only, to fasten Knitomat to table.
- G. PLASTIC VINYL COVER: Used to cover Knitomat when not in use.

### OPERATING INSTRUCTIONS FOR KNITOMAT

#### A. HOW TO CAST ON KNITTING WITH THE AID OF THE STARTING CLOTH.

1. Adjust stitch gage to medium size or larger. (Should smaller gage be desired, adjust after at least two rows have been knitted loosely.)
2. Put loops of starting cloth over needles to be used, and move cloth all the way back against Knitomat. (Fig. 1)
3. Open latches on all needles to be used by using the crochet hook.
4. Lay silk thread over open needles.
5. Pull starting cloth towards you slowly, so that the cloth closes the latches over the silk thread. Note: Care must be taken not to pierce the cloth with the sharp points of the latches when pulling it forward. (Fig. 2)
6. Move slide slowly across Knitomat, holding both ends of silk thread lightly in one hand just below the needles to which the cloth has been attached. (Fig. 3)
7. After silk thread has thereby been knitted to starting cloth, push the cloth back against Knitomat, thereby opening the latches. (Use plastic pusher for best results) (Fig. 4)
8. Lay yarn to be used across the now open needles, as closely to their front as possible, so that the long end of the yarn is on the opposite side from where the slide is now located. Grasp the long and short end of the yarn in one hand, holding it loosely just below the needles, then move slide across,

applying moderate tension to long end of yarn, which will then slide thru your fingers as loops are being knitted. The movement of the slide across the open needles will close them, one by one.

9. Push starting cloth with first row of knitting back against Knitomat, and proceed as in step 8.
10. After several rows have been knitted loosely, with the large gage, the gage may be adjusted to whatever size desired.

#### B. HOW TO REMOVE STARTING CLOTH.

After work has been completed, or has at least considerably advanced, pull out the silk thread which joins the work to the starting cloth. Proceed to bind off the yarn by picking up two stitches on the end by means of the crochet hook, and slipping the second stitch thru the first, the third thru the fourth, and so on, until the entire last row has been bound off.

#### C. HOW TO CAST ON KNITTING WITHOUT THE STARTING CLOTH.

Note: This procedure may be found easier and faster after the use of the Knitomat has been mastered to some degree.

1. Adjust gage to desired size.
2. Move slide all the way to right and open all latches on needles to be used.
3. Make a sliding loop (slip knot) with the end of the yarn and place this loop on extreme left needle to be used. Proceed to loop yarn around each successive needle, in a counter clockwise movement, making the loops loosely, so that the base of the garment will not become too tight.
4. Push all loops so formed back against Knitomat, thereby opening latches.

5. Lay yarn across the open needles, as closely to front as possible, and letting the yarn slide easily thru the left hand, move slide across, thereby knitting first row.
6. Push completed loops to the back of the Knitomat, using the pusher and also using a slight downward movement to keep the newly formed loops from falling off the needles.
7. Continue by placing yarn across open needles and moving slide back and forth.

(Note: Proceed slowly at first, to avoid dropping stitches.)

#### D. HOW TO INCREASE.

When it becomes necessary to shape the garment by increasing the number of stitches, proceed as follows: Depending on the side on which increase is desired, loop yarn loosely over open needles to the right or left, of completed row, making the loops in a counter clockwise manner when increasing on the right, and in a clockwise manner when increasing on the left. After the loops have thus been formed, push them back against the Knitomat as previously, and the Knitomat will knit them into the next row, as soon as the slide is moved across, each hand formed loop thereby becoming part of the work.

#### E. HOW TO DECREASE.

Decreasing may be done easily in the following manner, on either side: Pick up the last stitch on which ever side desired, and place on adjoining needle by placing removed stitch under the stitch already on adjoining needle. This is best done with either the crochet hook or the wooden latched needle.

#### F. HOW TO UNDO ROW OF KNITTING.

Pulling the work from below, lift yarn up, slipping last completed stitch back on needle across row. The work must be in



front, and the latches are closed. The slide must be moved to opposite side from which this operation is started, while the knitting is still in front and the latches are closed. Otherwise it will be on the wrong side when knitting is commenced again.

G. HOW TO DO THE YARN OVER, KNIT TWO TOGETHER.

Transfer stitch on which yarn over is desired to adjacent needle, be sure that latch on vacant needle is open. Lay your yarn across as usual and continue to knit and KNITOMAT will do the yarn over automatically.

H. HOW TO DO THE SLIP STITCH.

Move all stitches, except those to be slipped, behind the latches, then lay yarn across needles to be knitted and under needles to be slipped. Move slide across as usual.

I. HOW TO BIND OFF WORK.

Knit last two rows of garment with large stitch gage. Starting from the side opposite the loose yarn, place first and second stitches on crochet hook, then draw the second stitch thru the first. Remove the next stitch and proceed as before, Finish by pulling loose end of yarn thru final stitch.

J. HOW TO CHANGE COLORS.

After row has been completed in color A, lay yarn of color B across open needles and proceed to knit as previously, letting yarn of Color A hang down loosely. Knitomat will automatically join color B to A. Should a color change be desired in the middle of a row, proceed as follows: Knit color A up to desired needle, holding slide there. Letting yarn of A color hang down, place B color over remaining needles, and continue the movement of the slide across. Care must be taken that color B yarn is started from underneath last needle of Color A and then placed over first needle of color B, in order to avoid a hole.

K. HOW TO ALTERNATE COLORS EVERY SECOND STITCH.

Lay color A over needle 1, and under needle 2, across entire row. Then lay color B over needle 2, and under needle 3, across entire row. Proceed to knit row as previously.

L. HOW TO PICK UP A DROPPED STITCH.

Should a stitch be dropped accidentally, it can be picked up easily, and invisibly, in the following manner: Tilt Knitomat upward and affix in this position. (Custom models only. Others just lift knitting, to make it accessible from behind.) Pulling the work slightly towards you, insert the hook of the wooden latch needle into the dropped stitch. Holding the latch needle as you would a pencil, push it away from you so that the latch opens and the stitch slips beneath it. Then pull the tool toward you, at the same time catching the horizontal thread above into the hook of the latch needle. A quick movement toward you will now close the latch, and draw the running thread thru the previous stitch, thus forming a new one. Continue this process all the way up the line of dropped stitches, and hang the last one back on the proper needle. Note: It is important that this entire process described above is done from the side facing away from you, i.e. the knit side of the work.

M. HOW TO MAKE A RIB (PURL)

To make a rib, the stitches which are to be reversed are dropped and then picked up on the purl side (facing the operator) of the work. In this manner knit stitches will be formed on the purl side. It is important, that you pick up the first line of stitches before the second line is dropped. The ribbing is done exactly as described in L above, except that the process is done on the side facing the operator. To produce many attractive fancy patterns,

- every alternate thread only is picked up, or two reads at a time, etc. etc. Although this process may seem slow at first, it will soon become easy for you and can be done speedily and without effort. Do not pur1 more than 3" at a time.

#### N. KNITTING SEVERAL PIECES AT ONE TIME.

In working several pieces at once, such as two socks, sleeves, cuffs, etc. one movement of the slide will suffice to produce a row in each piece. Both pieces have to be cast on separately, and on individual balls of yarn. All operations, such as laying the yarn across the needles, changing of colors etc. etc. must be done one after the other on the separate pieces of work, but one movement of the slide knits a row onto all pieces at once. Each yarn must be held individually whenever the slide is moved across, and care must be taken not to mix up the several loose ends of yarn on the different pieces.

#### O. HOW TO MAKE BUTTON HOLES OR HORIZONTAL SLITS.

Proceed to knit to where buttonhole is to start. Stop the slide there. Start new ball of yarn on next needle, using casting on method without starting cloth. Knit to edge of garment. Repeat this until entire length of button hole has been reached. Then bind off second yarn, and proceed to knit with first ball of yarn as before. To produce a horizontal slit, knit 3 stitches, then bind off 3 stitches on first row. On second row cast on 3 stitches where you bound off previous stitches.

#### P. HOW TO DO THE CABLE STITCH.

Knit six rows stockinette, knit last row with stitch gage two notches larger than previously. Drop stitches 4, 5, 12, and 13, and pick up with latch key inserting your latch key six rows below. This will provide for pur1. Place stitches 6, 7, and 8 on needles 9, 10, and 11. Place stitches 9, 10, and 11 on needles 6, 7, and 8. Knit row. Adjust stit h gage to

usual size. Knit 6 more rows and repeat transfer of stitches, knitting row before and after transfer on stitch gage two notches larger. When changing stitch gage, be sure slide is at either end.

#### ADDITIONAL PATTERNS

**DROPPED STITCH:** Where dropped stitch pattern is desired, drop off stitches after one inch is knitted and continue to do so after every inch or two has been knitted.

**OPEN PATTERNS:** Smocked, diagonal, or alternating pattern hole effect may be obtained by alternating the knit two together stitches, such as moving stitch onto left adjacent needle one row, onto right adjacent needle the next row, or by staggering count in yarn over stitch.

**HOLE PATTERN:** If larger holes are desired. Place two stitches on one needle adjacent to place where hole is desired. Lay yarn under vacant needles and above other needles. When knitting next row, be sure all latches are open, lay yarn across as usual and vacant needles will pick up stitches similarly to yarn over process.

**SIMULATED RIBBING:** Make a slip stitch where purl is desired on every second row of knitting.

**BULKY LOOK:** If bulky effect with 4-ply yarn is desired, cast on and knit on every second needle, putting yarn over needles which are cast on and under vacant needles.

**ROPE TRIM:** This is used for trimming, belt, draw string, or for braiding.

A. Knit one row leaving stitches in front. Return slide to starting side while stitches are in front. Push back stitches. Pick up yarn from opposite side carrying it underneath the needles to the side where the slide is on. Lay yarn across open needles and knit one row in the usual manner leaving stitches in front and continue at A above. Repeat this process until desired length has been attained.

(See last page for increase or decrease in center of work.)

Q. HOW TO KNIT ARGYLE SOCKS.

Material needed: 2 ozs. main color (MC), 1 oz. color A, 1 oz. color B. Cast on 68 stitches, work 20 rows, either knit 2, purl 2, or stockinette. Decrease 1 stitch each side of work leaving 66 stitches. Work in stockinette, starting diamond as follows: Attach color A, and knit 2, drop color A, pick up MC (always pick up new color from underneath color which is dropped, thus twisting yarns around each other to avoid formation of a hole.) Knit 30 stitches. Attach color B, and knit 2, attach second ball of MC and knit 30 stitches. Attach second ball of A and knit 2, continue to work in stockinette. Increase every second row for large diamond, and every row for small diamond.

Heel: Remove all but 16 stitches on each side of sock. Tie on another ball of MC, and work the following 2 rows 18 times: Row 1- knit 1, slip 1, Row 2, knit all stitches. Row one is done by placing yarn in front of first needle, then in back of second needle, front of third, back of fourth, etc. Use large stitch gage on first row, regular gage on second row, etc. Now remove 8 of the 16 stitches on the knitter from the side opposite the yarn on the inside of the heel, knit one row stockinette, remove 8 stitches from other side of heel, knit one row stockinette, decrease 1 stitch of the eight on one side, one row stockinette, decrease on the other side one stitch, one row stockinette. Continue in this manner until all eight stitches have been decreased. There are now 8 stitches remaining, pick up 12 stitches on side of heel and place on knitter, pick up instep stitches back on knitter, and pick up 12 stitches along other side of heel. Tie on another ball of color A, and work one complete diamond, at the same time decrease 1 stitch on each side of sock as follows,

for gussett:

Knit 2 rows stockinette between each decrease:

20th	stitch	over	21st,	16th	over	17th,
19th	"	"	20th,	15th	"	16th,
18th	"	"	19th,	14th	"	15th,
17th	"	"	18th,	Remember to rearrange.		

There are now 58 stitches on knitter, complete diamond, and continue stockinette stitch for 30 rows.

Toe: Follow these decreases until 20 stitches remain.

17	over	18,	and	13	over	14	12	over	13	and	8	over	9
16	"	17,	12	"	13,	11	"	12	7	"	8		
15	"	16,	11	"	12	10	"	11	6	"	7		
14	"	15,	10	"	11	9	"	10	5	"	6		
13	"	14,	9	"	10	8	"	9					

#### R. HOW TO KNIT A MEN'S SLEEVELESS SWEATER.

Cast on 110 stitches. Knit 35 rows, knitting two and purling two. Increase 22 stitches to 132 on 36th row. Work for 134 rows or 14".

Armhole: Bind off 10 stitches at beginning of next two rows, then decrease one stitch on each side every other row for eight times. This leaves 96 stitches. Work straight for 94 rows or 10".

Shoulder: Bind off 9 stitches on each side at beginning of next 6 rows, leaving 27 stitches for each shoulder. Knit 42 stitches for 10 rows in knit two and purl two fashion.

Front: Work the same as the back above, until last decrease has been made at under arm, then proceed as follows: Work 48 stitches with one ball of yarn, knit two together center, and work remaining stitches with second ball. Decrease one stitch at beginning of neck edge each side every 4th row 10 times, every fourth row 11 times, then knit 10 inches. 27 stitches.

Shoulder: Bind off 9 stitches each  
 rows, pick up 60 stitches from it shou  
 knit two and purl two fashion for 10 rows.  
 Sleeve: Pick up 140 stitches around arm  
 two and purl two fashion for 10 rows.

INCREASE AND DECREASE IN THE MIDDLE OF YOUR

INCREASE: Working from the center of your work to  
 all stitches on the outside of your work must be  
 to the outside, leaving one vacant needle at point  
 Place back of stitch adjacent to vacant needle  
 move stitches back, assure that all latches are  
 usual.

DECREASE: Put two or more stitches together at  
 then move all stitches toward the center so that  
 are left.

Stitches can be moved in three ways:

1. Move stitch by stitch with crochet hook.
2. Slip all stitches to point of increase or decrease onto first knitting needle. Replace stitches onto KNITOMAT needles leaving vacant needles for increase or slip two stitches onto one needle for decrease according to pattern.
3. Knit one row with a contrasting color of yarn. Then take your work off the KNITOMAT needles. Bend back or last row which was knitted with different color yarn. Replace the next to last row (this is the last row knitted with your regular yarn) onto KNITOMAT needles, place with your on needle desired, leaving vacant needles stitch desired or putting two stitches on one needle. increase is is desired. Pull out the different color yarn. decrease after stitches have been replaced.

KNOBBY YARN

Do not use too tight a stitch adjustment  
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 on knit and purl side.

old yarn  
 ant of knobs

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