TIPS & SWANTE TECHNIQUES

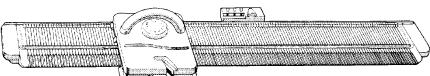
Issue #27

Mosaic Tuck Stitch on the LK150

You can knit two color tuck stitch patterns on any machine, including the LK150. Two color tuck is also called mosaic knitting because of the kinds of designs that are suitable. Most hand knit mosaic patterns, which are actually knitted in slip stitch, tend to look like mazes or lattice patterns with the dark verticals only one stitch wide and the dark horizontals one row high. These patterns can also be used for machine knitting as long as no more than two adjacent needles tuck anywhere in the design. Those patterns that do not follow this rule can be knitted in mosaic slip stitch instead; its only a matter of how you set the carriage because the designs, selection and method of knitting are the same.

The knit side is the right side of mosaic fabrics, although the purl side is often quite interesting as well! Because there are no floats on the back, garments knitted in this technique are much lighter weight than they would have been had the same yarn been used for fair isle. The weight of the finished garment is an important consideration when working with the 6.5 mm gauge of the LK150. Also, in contrast to fairisle (which usually draws in), tuck stitches tend to produce wider fabrics. This means that there are fewer stitches required to knit larger sizes and fewer needles to hand select for patterning. Because mosaic patterns are always knitted with two identical rows of selection in the same color there are even fewer selections and yarn changes to be made. This is a very fast way to produce lots of pattern on a manual machine and a great way to knit larger garments!

Mosaic patterns are almost always knitted with two rows per color and with some patterns it will make a big difference which one you start with, so follow the directions with each chart carefully. When



changing colors, the yarn should be tucked under a yarn rest at one end of the bed. When it is not being used, pass the yarn that is threaded through the left side of the tension unit under all the needles and then catch it in the left yarn rest. Simply pass the yarn threaded through the right side of the tension unit under the right yarn rest. Changing colors every two rows is not difficult but it's easy to overlook slack yarn tension and just as easy to thread the carriage incorrectly if you're in a hurry!

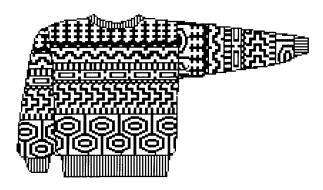
If you decide to use a combination of patterns and colors, there can be a lot of yarn tails to deal with. You can work them in later by hand, or weave them in as you work. After knitting the first row of a color, push 8 ndls at the edge to D position and weave the yarn tail over and under the needle shafts. Before knitting the next row, push any needles back to C position as required for the next row of pattern selection. The yarn tail should lay behind the open latches.

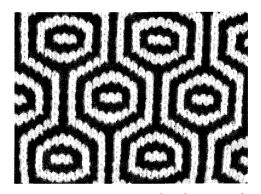
Try knitting some samples using the charts that follow. Begin each pattern by centering the first repeat on the bed and then working out to either side. It will be easy to keep track of the pattern if you use a wipe-off grease pencil to mark the position of each repeat on the bed and check off each row as you knit. Weight the fabric evenly across the width. Set both Russel levers (I) to hold needles in D position. This symbol [\bigcap] means that a needle is pushed to D position to tuck. Following row 1 & 2 for one of the charts, select all the pattern needles across the bed

then knit 2 rows with one color. *Change colors, nudge the selected needles back to C position then push to D position all the needles shown for rows 3 & 4 in the chart. Knit 2 rows with the second color*. Repeat *to* for every two rows.

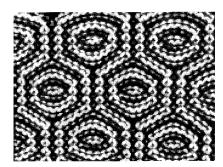
You cannot rely on the carriage Russel Levers to return needles automatically because while some are being returned to C position, others are simultaneously being pushed to D. If a needle isn't quite in C position, it may return to D rather than B position so keep your eyes out for any needles that look out of place. Never select the edge needle at either side.

All of the examples that follow are knitted as described above and all of them (except #6a) are knitted with 2 rows per color. Pay close attention when knitting pattern #5 because, as you nudge one set of needles back to C position and then select all





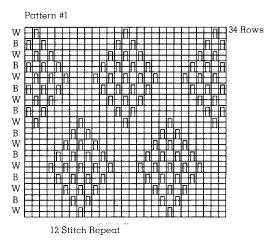
This fabric tends to be very raised and requires firm blocking.

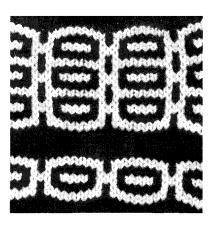


This is the purl side of #1. Notice that there are no floats and that the design is almost as interesting as the knit side.

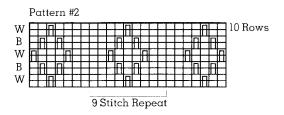
the alternate needles to D, there are no needles left in regular working position to anchor the stitches. Keep your hand against the fabric to hold it back as you move groups of needles to D. Otherwise, you will drop stitches.

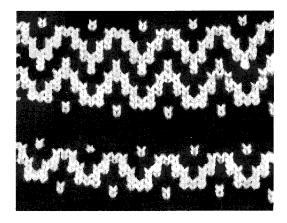
You'll notice that the working charts do not resemble the finished patterns at all. This is because of the way tuck stitches pull each color up behind the other. If you were to use the same charts to knit fair isle, the fabric would resemble the chart. In addition to using these charts to hand select patterns on manual machines, you can use them for punch cards and mylar design cards for automatic machines.



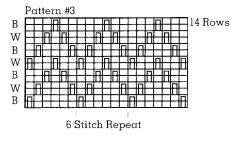


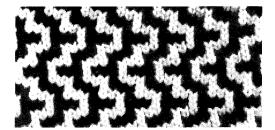
Bottom of the sample shows one repeat of pattern; top portion shows three repeats of first eight rows only.



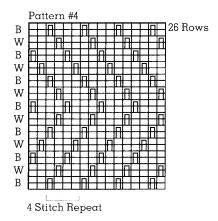


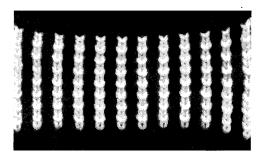
Bottom of sample shows one repeat of pattern; top portion shows two. This pattern would make an attractive all-over design.



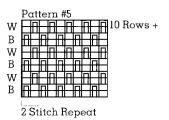


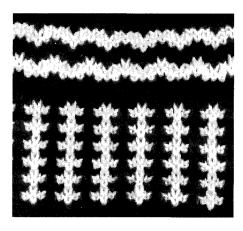
This sample was knitted using the 1 x 3 needle pusher to select needles. You could make the stripes further apart by selecting every 5th or 6th needle instead. If you change direction less/more often or not at all, you can vary the length and direction of the diagonals.



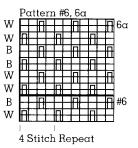


This is a very firm fabric because the tucks are so close together. It makes an excellent welt for sweaters that show vertically striped ribs or bands. Short repeats make a nice accent between other design borders.





Use the 1 x 3 needle pusher to select needles for these designs. The crossed vertical pattern (#6) uses the standard two rows/color sequence. The wavy lines (6a) were knitted with four rows/color.

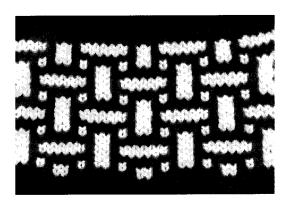


Creating your own designs or working from hand knit patterns

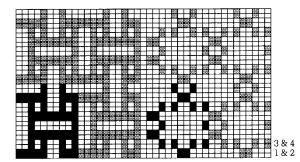
Once you've worked through some of these sample patterns, you'll find that the needles are selected in fairly regular, simple progressions and you will probably have some ideas for variations of your own. Try them and be prepared for some surprises! If you'd rather not be surprised and you're willing to follow more complicated charts, try the method that follows.

It's quite easy to convert hand knitting patterns and lattice designs to working charts for hand selection (or punching cards/drawing mylars). "Charted Knitting Designs" by Barbara Walker has a whole chapter of gridded mosaic designs to choose from and Dover publications (#24128-9), "The New Book of Chinese Lattice Designs" is a great source for ideas. Once you've found a pattern or designed one of your own, this is how to convert the design to a working chart:

1. Draw your pattern on graph paper, showing at least one full repeat in each direction. To make sure that the design edges will connect properly you should really show more. See charts 7a and 8a.



The sample shows several repeats of the lattice pattern.

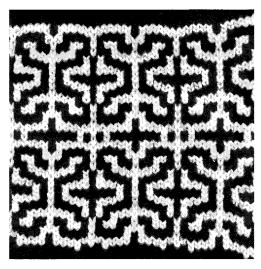


7a. Original design

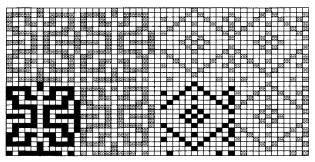
7b. Chart for selecting needles: The filled squares in rows 1 & 2 represent all the white squares in rows 1 & 2 of the original design. The filled squares in rows 3 & 4 represent all the black squares in rows 3 & 4 of the original design, etc.

2. Make a new chart to record the actual needle selection for each row: For row #1 (and all odd numbered rows) mark the new chart to show the position (on the original chart) of the white squares only. For row #2 (and all even numbered rows) mark only the position of the black squares. The squares now represent needle selected to D position. Each row will be knitted twice in the same color and the colors will alternate. The design shown at 7a/7b has already been expanded to repeat each row twice; 8a/ 8b has not. Not all designs will be suitable for tuck mosaic knitting; those that are not can be knitted with the carriage set for slip or you can rework the design to eliminate the trouble spots. Look for more than two adjacent squares filled in (in the same row) on the final chart and introduce a blank square between them.

Some of the information and patterns in this T & T first appeared in the Fall, 1994 issue of *Knitter's Magazine*, which also included the pattern for the sweater shown at XXX.



This motif is suitable for an all-over design or use a single repeat for an accent border.



8a. Original lattice design

8b. Chart for selecting needles: each row has been shown only once, but must be knitted twice.