

Knitting charts[©]

Excerpt from Kera Weiserbs, *The Easier Way to Knit*, Kindle Direct Publishing, 2017

Traditional knitting charts are a convenient tool for representing single knit fabrics. However, they are not well suited for double rake loom knitting because they neither specify whether instructions apply to the FR or to the BR nor do they specify crosses between the rakes. To address this, I developed a knitting chart system for double rake looms that includes rake specific instructions that can represent loop and stitch crosses on both the same rake and between rakes.

Knitoglyphics

Knitoglyphics (knitting symbols and abbreviations) for double rake knitting charts are summarized in Figure 1. The knitoglyphics include symbols for looping pegs and for adding stitches and crosses. The stockinette stitch is the default stitch in all knitting charts unless another stitch is specified. The wide rib cable[©] is an example of a stitch that is not stockinette based. Figure 8 explains how to interpret the knitting chart for this stitch.

Loops that are wrapped around a peg but are not knit off, such as **cast on** (the first row of stitches) or **tucked loops** (stitches with multiple loops), are symbolized by an open circle (○). Stitches, loops that are knit off, are symbolized with a solid circle (●), a bullseye (⊙), or the letter K. A ● indicates that a loop is wrapped around a peg, and all bottom loop(s) are knit over the top loop. A numbered circle indicates the number of times a peg is looped. For example, 2● indicates that a peg is looped twice and then all bottom loop(s) are knit over the top loop. A bullseye (⊙) indicates that the bottom loop is knit over the top two loops. The letter K also indicates represents knitting off. It

is used when the preceding step doesn't add a row of stitches, for example, after a cross or a bead. Loop crosses are represented with arrows that point in the direction of the cross. Similarly, stitch crosses are represented with a caret followed by an arrow that points in the direction of the cross (See pages 3-4 for a complete interpretation of loop and stitch crosses).

Figure 1: Knitoglyphics for double rake knitting.

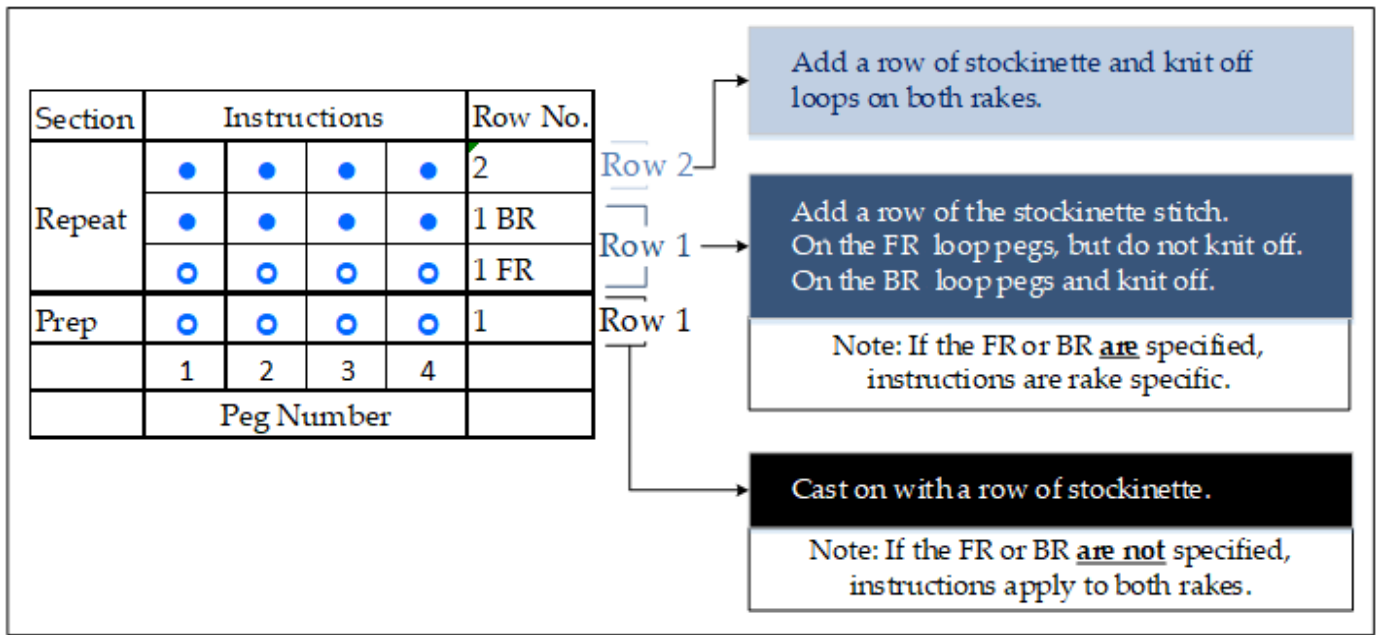
Looping and stitching symbols	
○	Loop peg but do not knit off.
●	Loop peg and knit off bottom loops.
2●	Loop peg twice and knit off bottom loop(s) over the top two loops.
↙2●↘	Undo the double loops on the BR and divide the excess yarn between the catty-corner loops on the FR.
↘2●↙	Undo the double loops on the FR and divide the excess yarn between the catty-corner loops on the BR.
⊙	Loop bottom loop over top two loops and knit off.
K	Knit off.
P	Purl.
⑧	Replace a stockinette stitch with two figure 8 stitches.

Interpreting knitting charts

Knitting charts for double rake looms are divided into three sections, a **preparatory section** (a.k.a. **prep**), a **repeat section**, and an optional **end section**, which is only required for stitches that have a unique end, such as the last cross on a cable. The preparatory section includes a cast on row and may also include additional rows of stitches and/or crosses. Note: If the cast on row uses a different stitch than subsequent rows, it will be specified in the stitch's instructions. The repeat section specifies the minimum number of rows that form a unit pattern. Each section has row specific instructions, which are either applied to one or both rakes. Instructions that are only applied to one rake are specified by a number followed by FR or BR. For example, 1 FR refers to row 1 on the FR, and 1 BR refers to row 1 on the BR. Similarly, instructions that are applied to both rakes are labeled with a number without specifying a rake.

Figure 2 illustrates the knitting chart for stockinette brioche, an elastic, three-dimensional stitch. As the name suggests, this is a stockinette based stitch. The preparatory section has open circles, which indicates weaving a row of stitches around the pegs. The repeat section includes two rows of stockinette per repeating unit. The first row of the repeat section has rake specific instructions. On the FR (1 FR), the open circles indicate to weave the yarn around the pegs, and on the BR (1 BR), the filled circles indicate to weave the yarn around the pegs and to knit off the bottom loop(s) over the top loop. After completing row 1, the FR will have two loops on each peg, and the BR will have one loop on each peg. The knitting instructions for row 2 are not rake specific. Therefore, the knitting directions, weaving a row of stockinette and knitting off the bottom loop(s) over the top loop, apply to both rakes. Note: Although the instructions for row 2 are not rake specific, the loops are knit slightly differently on each rake. This is because the BR has two loops on each peg, and the FR has three loops on each peg.

Figure 2: Knitting chart for the stockinette brioche pattern.



Crosses

Loop crosses

Crosses are loops that are moved to another peg on the same rake. Instructions for a right cross are summarized in Figure 3. A right cross is a cross where the first loop (the left loop) is moved to the right, and then the right loop is moved to the left. To create a right cross, 1) lift two adjacent loops off their pegs, 2) move the left loop to the right peg, and then 3) move the right loop to the left peg.

Notation for a right cross is illustrated in Figure 4 and in Figure 5. This notation uses arrows to indicate the direction of the cross. The superscript at the tail of the arrow indicates which loop is crossed first, second, third, etc., and the number after the arrow's point indicates the loop's new location. Figure 4 explains the notation. For example, the $^1 \rightarrow 6$ above peg 4 indicates that the loop on the fourth peg is moved first and should be placed on the sixth peg.

Figure 5 illustrates a sample knitting chart with multiple right crosses. Note: If a peg is moved to an adjacent loop, then the loop's new location is omitted. In addition, if the order of the move is not specified, then the order the loop transfers is not essential for the pattern, and loops can be moved from either right to left or left to right. For reference, Figure 7 summarizes cross notations for the double rake loom. However, their uses are explained when the notation is used.

Elongated slip stitches

Loop crosses to the opposite rake create elongated slip stitches, which are represented by up or down arrows. Up arrows (\nearrow , \nearrow , \uparrow) indicate **loop transfers** from the FR to the BR, which create **elongated slip stitches**. Similarly, down arrows (\nwarrow , \nwarrow , \downarrow) indicate loop transfers that create elongated slip stitches by moving a loop from the BR to the FR.

Figure 3: Instructions for a right cross.

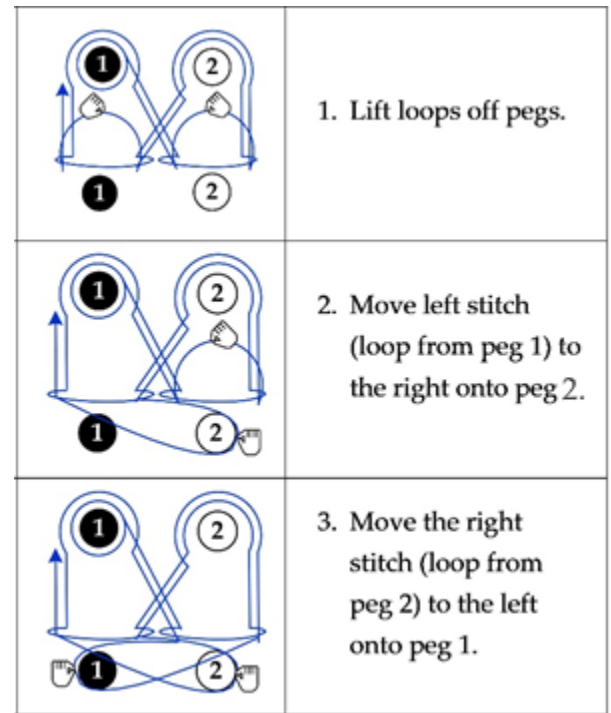


Figure 4: Notation for a right cross.

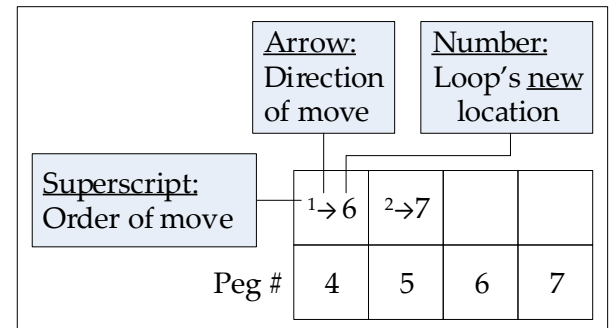


Figure 5: Knitting chart for right crosses.

	$^1 \rightarrow$	\leftarrow^2	$^1 \rightarrow$	\leftarrow^2	$^1 \rightarrow$	\leftarrow^2	3 FR
Repeat	•	•	•	•	•	•	3
	•	•	•	•	•	•	2
	•	•	•	•	•	•	1
Prep	$^1 \rightarrow$	\leftarrow^2	$^1 \rightarrow$	\leftarrow^2	$^1 \rightarrow$	\leftarrow^2	2 FR
	•	•	•	•	•	•	2
	•	•	•	•	•	•	1
	1	2	3	4	5	6	

Stitch crosses

Stitch crosses are similar to loop crosses, except a stitch cross moves a stitch, instead of a loop, to a neighboring peg. The most common stitch crosses are to the opposite peg or to a catty-corner peg. Figure 6 illustrates a stitch cross from the BR to the FR. A stitch cross from the BR to the opposite peg on the FR is symbolized with a down caret ∇ . Similarly, a stitch cross from the FR to the opposite peg on the BR is symbolized by an \wedge . Catty-corner stitch crosses are symbolized by a \wedge , followed by an arrow that indicates its new location. For example, a right catty-corner stitch crossed from the BR to the FR is symbolized by a down caret, $\nabla\searrow$. Similarly, a right catty-corner stitch cross from the FR to the BR is symbolized by an up caret, $\wedge\swarrow$.

Figure 6: A stitch cross from the BR to the opposite peg on the FR.

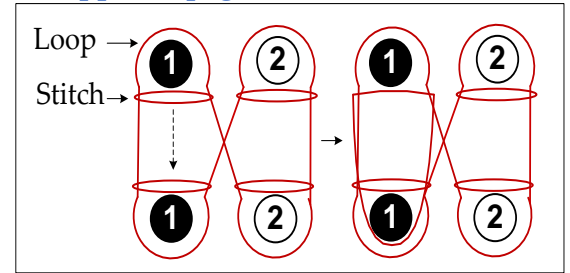


Figure 7: Summary of cross notation for the double rake loom.

Lateral crosses	Symbol	Explanation
Right cross		
Adjacent peg	\rightarrow	Move loop one peg to the right.
General*	$n \rightarrow x$	The n^{th} cross: Move loop to peg x on the same rake. <ul style="list-style-type: none"> e.g., $2 \rightarrow 3$: The second cross moves a loop rightward to peg 3.
Left cross		
Adjacent peg	\leftarrow	Move loop one peg to the left.
General*	$x \leftarrow n$	The n^{th} cross: Move loop to peg x on the same rake. <ul style="list-style-type: none"> e.g., $2 \leftarrow 1$: The first cross moves the loop leftward to peg 2.
Between rakes		
From BR to FR		
Directly across	\downarrow	Move loop from BR to opposite peg (FR).
Right catty-corner	\searrow	Move loop from BR to right catty-corner peg (FR).
Left catty-corner	\swarrow	Move loop from BR to left catty-corner peg (FR).
Right general	$n \searrow x^*$	The n^{th} cross: Move loop to peg x on the opposite rake. <ul style="list-style-type: none"> e.g., $3 \searrow 2$: Third cross moves a loop from the BR to peg 2 (FR).
Left general	$x \swarrow n$	The n^{th} cross: Move loop to peg x on the opposite rake. <ul style="list-style-type: none"> e.g., $4 \swarrow 3$: Third cross moves a loop from the BR loop to peg 4 (FR).
From FR to BR		
Directly across	\uparrow	Move loop from FR to opposite peg (BR).
Right catty-corner	\nearrow	Move loop from FR to right catty-corner peg (BR).
Left catty-corner	\nwarrow	Move loop from FR to left catty-corner peg (BR).
Right general*	$n \nearrow x$	The n^{th} cross: Move loop to peg x on the opposite rake. <ul style="list-style-type: none"> e.g., $1 \nearrow 2$: The first cross moves a loop from the FR to peg 2 (BR).
Left general*	$x \nwarrow n$	The n^{th} cross: Move loop to peg x on the opposite rake. <ul style="list-style-type: none"> e.g., $4 \nwarrow 3$: Third cross moves a loop to peg 4 on the BR.
*Arrow: direction of the move. Superscript: cross order (e.g., the first cross, the second cross, etc.). x: peg number for the new loop.		

Figure 8 explains how to interpret each row of the knitting chart for the wide rib cable[®], an original stitch that uses the wide rib stitch[®] (illustrated in Figure 9) as its base stitch.

The preparatory (prep) section in Figure 8 has one row. Row 1, as always, represents the cast on row. Note that although a cast on stitch is not specified in the chart, it would be specified in a pattern, e.g., cast on with one rotation of figure 8 stitch.

The repeat section uses three rows of wide rib stitches to form a unit pattern. Row 1 includes two steps. The first step has rake specific instructions. The filled circles represent knitting a row of stitches. Note that every third peg on the BR has a $\nearrow 2 \bullet \searrow$. The 2 in front of the circle symbolizes double wrapping a peg and knitting off. The arrows on both sides of the $\nearrow 2 \bullet \searrow$ indicate to knit off the loops and to divide the excess yarn formed by the double loop between the two catty-corner pegs on the opposite rake. The next step adds a row of crosses that switch the first and third loop in each triplet. The next step adds elongated slip stitches on to the BR. The elongated slip stitches, which are symbolized by an up arrow (\uparrow), are formed by moving the loop on every third peg on the FR to the opposite peg on the BR. The third step indicates to knit off (K) the loop pairs that are formed by the elongated slip stitches on the BR.

Row 2 includes three steps. The first step adds a row of wide rib stitches. The second step adds elongated slip stitches on to the BR. The elongated slip stitches, which are symbolized by an up arrow (\uparrow), are formed by moving the loop on every third peg on the FR to the opposite peg on the BR. The third step indicates to knit off (K) the loop pairs that are formed by the elongated slip stitches on the BR.

Row 3 adds one row of wide rib stitches. The filled circles indicate to loop pegs and knit off loop pairs, and the open circles indicate that a peg is looped but is not knit off. Every third peg on the FR has an open circle. The loops on these pegs were used to form the elongated slip stitches. Therefore, after adding a row of the wide rib stitch, each of these pegs will only have one loop and cannot be knit off.

Figure 8: Knitting chart for the wide rib cable.

End	•	•	•	•	•	•	•	•	1	
Repeat	•	•	•	•	•	•	•	•	3 BR	Row 3
	•	•	○	•	•	○	•	•	3 FR	
			K			K			2 BR	Row 2
			↑			↑			2 FR	
	•	•	•	•	•	•	•	•	2	Row 1
		$1 \rightarrow 4$		$2 \leftarrow 2$	$1 \rightarrow 7$		$5 \leftarrow 2$		1 FR	
	•	•	$\nearrow 2 \bullet \searrow$	•	•	$\nearrow 2 \bullet \searrow$	•	•	1 BR	
	•	•	•	•	•	•	•	•	1 FR	
Prep	○	○	○	○	○	○	○	1		
	1	2	3	4	5	6	7	8		

Figure 9: Looping diagram for the wide rib stitch.

