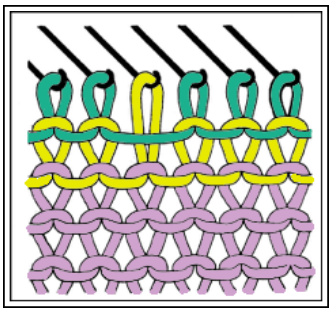
(Intarsia) + (Slip Stitch) = Plaid

INTARSIA (sometimes called *Picture Knitting*) is a knitting technique used to create patterns with multiple colors of yarn within the same row. Unlike fair isle knitting, yarn strands (aka floats) are not carried across the back of the fabric. When a yarn color changes within a given row, the old yarn is left hanging, to be picked up on the next row. When different colors of yarn are correctly crossed, the pattern will appear to be seamless (without holes) on the knit side of the fabric. On the purl side of the fabric you will see where the yarns are crossed preventing holes in your work.

Common examples of intarsia include large, solid-color motifs such geometric shapes, abstract organic shapes, animals, flowers, buildings - you name it! Argyle patterns are also often created with intarsia, although the thin diagonal lines may be added later using a different technique, such as duplicate stitch.



Completed Slip Stitch

SLIP STITCH is most commonly used to create surface texture on the purl side of the fabric when knitting with only one color yarn. When the carriage is set to slip, the strand of yarn passes underneath the needles in working position (B), creating a float on the purl side of the fabric.

As mentioned, single color slip stitch may be used to create texture. Multi-colored slip stitch can be used to create patterns, which may mimic stranded work, but only one end of yarn is used in each row. Slip stitch patterns may be selected manually, with punchcards, or electronically. Your manual may also refer to this as “Skip Stitch” or “Miss Stitch.”

Intarsia Practice:

Using intarsia, *create 3 vertical columns using 3 different colors of yarn, referred to as Intarsia Color (IC):*

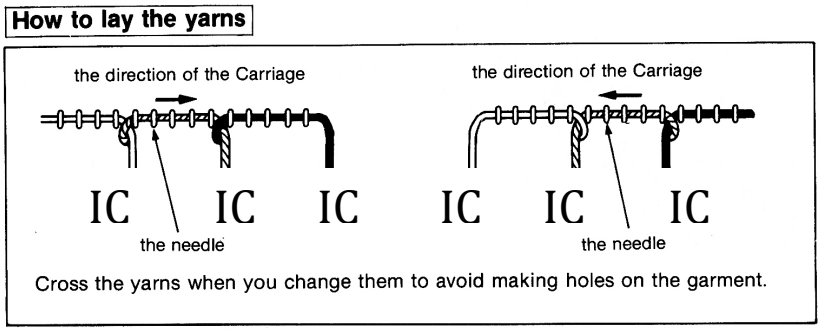
Using your preferred method, cast on 36 stitches (L18-R18) with scrap yarn. Knit a dozen or so rows with your main carriage. Remove yarn from the tension mast and main carriage (the tension mast is NOT used when knitting intarsia). If using a separate intarsia carriage, place it on the right side of the needle bed (alternately, configure your main carriage to intarsia setting).

Free pass your intarsia carriage across the needles from right to left, which will move the needles from working position (B position) into upper working position (UWP - D position on Brother and C position on Silver Reed/Studio). Notice that all latches are open and yarn loops are now BEHIND the latches. When knitting intarsia, it’s a good idea to get in the habit of double checking that all the latches of the needles are open, with the yarn loops positioned behind the open latches. The 3 yarns used for intarsia practice will be hand played across the needles in UWP.

Row 1: Starting with carriage left, lay *Intarsia Color 1* (IC1) across needles L18-L7 (the tail at L18, and the main yarn at L7), IC2 across needles L6-R6 (tail at L6, main yarn at R6), and IC3 across needles R7-R18 (tail at R7, main yarn at R18). (You may choose to use intarsia sinkers or clothes pins to weight these yarns. I prefer to wind Beadsmith thread bobbins for each color.) Slowly knit across to the right.

Row 2: Starting on carriage right, lay IC3 across needles R18-R7, IC2 across needles R6-L6, and IC1 across needles L7-L18. Slowly knit across to the left.

TIP: When laying your yarns, always start with the yarn closest to the carriage. Pick up the 2nd yarn from behind the one just laid to create a twist as shown in the diagram. Repeat with 3rd yarn. These twists will prevent holes in your knitting.



Repeat rows 1 and 2 for 5-10 rows, or until you get the hang of it. In one direction, it may appear that your yarns are tangled, and this tangling effect will correct itself on the return row.

Adding in the Slip Stitch Create Plaid:

Now that you (hopefully) have the hang of intarsia knitting, things will get more interesting (and complicated!) as you layer in a 4th contrast color and an additional technique.

Continue working with the same swatch on 36 needles (18L-18R).

The plaid effect is created using a 4 row pattern repeat:

Row 1: Vertical intarsia stripes knit over all needles with the intarsia carriage
Row 2: Using main carriage, knit every other needle slip stitch pattern knit in contrast color
Row 3: Vertical intarsia stripes knit over all needles with the intarsia carriage
Row 4: Using main carriage, knit every other needle slip stitch pattern knit in contrast color (the opposite needles than those selected in Row 2)

A few tips and tools before you start:

1. Install the extension rails on your machine as you will be using both your main carriage and your intarsia carriage concurrently. This extra space will come in handy to rest the unused carriage.
2. You'll need a transfer tool with an EON (every other needle) configuration. If you do not have one in your MK toolbox, you can also use a 7x1 adjustable transfer tool. Position the prongs so that 4 alternating prongs (1, 3, 5, and 7) are extended (the 3 even prongs should be retracted).
3. Set your main carriage to slip in both directions.
4. Even if your main carriage has an intarsia setting, my recommendation would be to also use a separate intarsia carriage in conjunction with your main carriage. Doing so will create less confusion (fewer setting changes, fewer yarn changes, fewer row counter errors). DISABLE the intarsia carriage's row counter tripper throughout. If not, be sure to watch your row counter CAREFULLY, as the multiple passes of the intarsia carriage can get confusing.
5. Although the plaid is knit with a 4 row repeat (2 rows intarsia and 2 rows slip stitch), the row counter is only being tripped by the main carriage, which means only every other row is being counted. So when you row counter reads 012, for example, 24 rows have actually been knit. If you lose track, you can manually count the vertical floats created in the slip stitch rows - each float represents 2 rows knit.

Intarsia Set-Up* Row:** Free pass your intarsia carriage across the needles from left to right, which will put the needles in UWP. Make sure that all the latches of the needles are open with yarn loops behind the open latches. ***If your intarsia carriage trips your row counter, dial your row counter BACK ONE NUMBER, as you did not actually knit a row. That is why this a referred to as "Intarsia Set-Up Row" – you are simply setting-up the needles to actively knit Row 1.

Row 1 (Intarsia): Intarsia carriage on right. Lay yarn IC3 across needles R18-R7, yarn IC2 across needles R6-L6, and yarn IC1 across needles L7-L18. Knit across all needles with the intarsia carriage from right to left. Place intarsia carriage out of the way on an extension rail.

Row 2 (Slip): Starting with needle R18, use the EON transfer tool to move every other needle from UWP into working position (B). Double check that these needles are pushed fully into position B to ensure that these needles will NOT knit. (Leave the remaining alternating needles in UWP.)

L 18	L 17	L 16	L 15	L 14	L 13	L 12	L 11	L 10	L 9	L 8	L 7	L 6	L 5	L 4	L 3	L 2	L 1	R 1	R 2	R 3	R 4	R 5	R 6	R 7	R 8	R 9	R 10	R 11	R 12	R 13	R 14	R 15	R 16	R 17	R 18
	B		B		B		B		B		B		B		B		B		B		B		B		B		B		B		B		B		B

Main carriage on right (main carriage should be set to Slip in both directions). Thread fourth contrast color through yarn feeder of main carriage and knit across. Place main carriage on left extension rail. Note that only those needles in UWP knit (working position (B) needles slipped), and all needles have been returned to working position (B).

L 18	L 17	L 16	L 15	L 14	L 13	L 12	L 11	L 10	L 9	L 8	L 7	L 6	L 5	L 4	L 3	L 2	L 1	R 1	R 2	R 3	R 4	R 5	R 6	R 7	R 8	R 9	R 10	R 11	R 12	R 13	R 14	R 15	R 16	R 17	R 18
B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B

Intarsia Set-Up* Row:** Free pass your intarsia carriage across the needles from right to left, again returning the needles to UWP. Make sure that all the latches of the needles are open. ***Do not trip your row counter

Row 3 (Intarsia): Lay yarn IC1 across needles L18-L7, yarn IC2 across needles L6-R6, and yarn IC3 across needles R7-R18. Knit across all needles with the intarsia carriage from left to right. Place intarsia carriage out of the way on an extension rail.

Row 4 (Slip): Starting with needle L18, use the EON transfer tool to move every other needle from UWP into working position (B) (the needles being moved into WP are the alternate needles to those moved in Row 2). Double check that these needles are pushed fully into position B. These needles will NOT knit. (Leave the remaining alternating needles in UWP.)

L 18	L 17	L 16	L 15	L 14	L 13	L 12	L 11	L 10	L 9	L 8	L 7	L 6	L 5	L 4	L 3	L 2	L 1	R 1	R 2	R 3	R 4	R 5	R 6	R 7	R 8	R 9	R 10	R 11	R 12	R 13	R 14	R 15	R 16	R 17	R 18
B		B		B		B		B		B		B		B		B		B		B		B		B		B		B		B		B		B	

Main carriage on left and knit across (4th contrast color is already threaded into yarn feeder from R2). Place carriage on right extension rail. Note that only those needles in UWP knit (working position (B) needles slipped), and all needles have been returned to working position (B).

L 18	L 17	L 16	L 15	L 14	L 13	L 12	L 11	L 10	L 9	L 8	L 7	L 6	L 5	L 4	L 3	L 2	L 1	R 1	R 2	R 3	R 4	R 5	R 6	R 7	R 8	R 9	R 10	R 11	R 12	R 13	R 14	R 15	R 16	R 17	R 18
B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B

Continue repeating rows 1-4 (as well as intarsia set-up rows) to achieve the plaid effect.

Change out the 4th contrast color (the color used in slip stitch rows 2 and 4) periodically. Don't spend too much time worrying about which color to use - just pick colors you love - allow yourself to be surprised by unusual, beautiful, and unexpected color combinations!! To make things less confusing, I recommend only changing out the contrast color on even rows.

Knitting Machine Needle Positions Explained:

Silver Reed/Studio	Brother/Knit King	Description related to needles on the bed
A	A	Non-Working Position (NWP) Out of Work Position (OWP) Needles do not knit.
B	B	Working Position (WP) Needles knit, unless slip is selected.
C	D	Upper Working Position (UWP) Needles knit, and this is the position required for intarsia.
D	E	Holding Position (HP) Needles do not knit if "hold" or tuck is selected. Otherwise, needles knit back to WP.