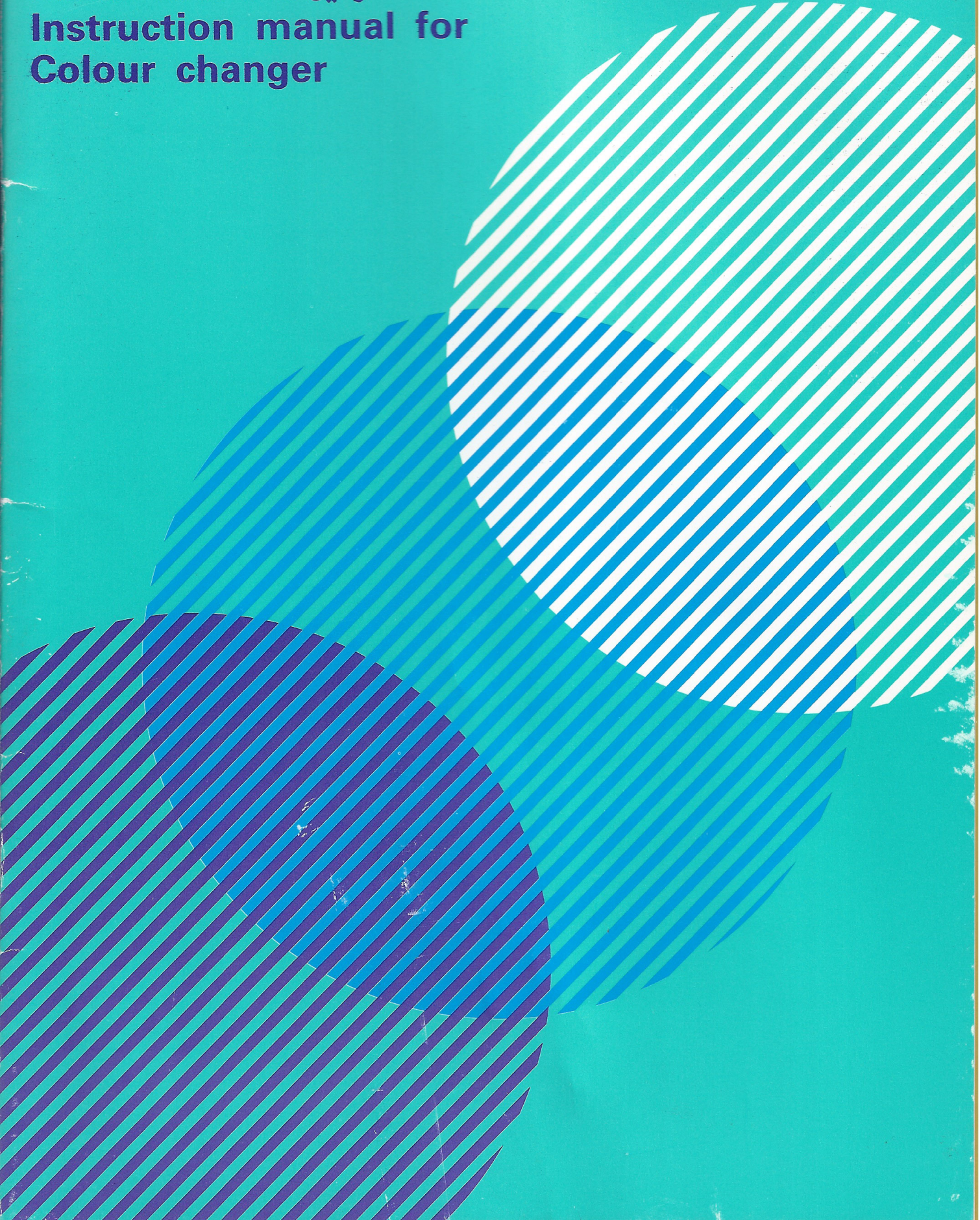


دليل التعليمات والتشغيل لجهاز تغيير اللون

موديل Model KRC-840

Instruction manual for
Colour changer



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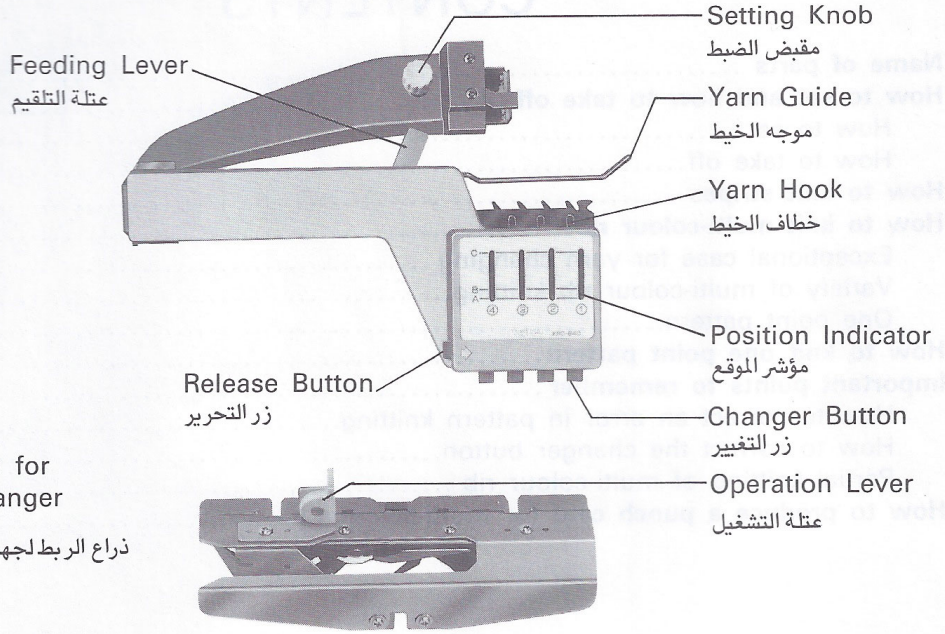
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Name of parts

أسماء الأجزاء

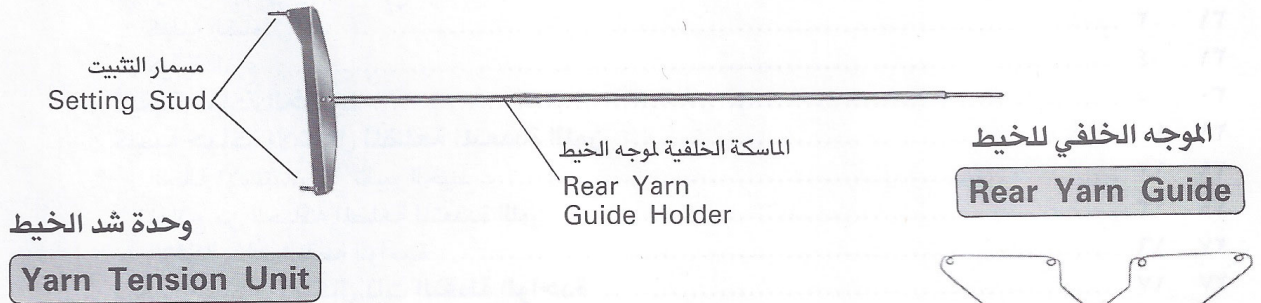
ذراع الضبط

Setting arm



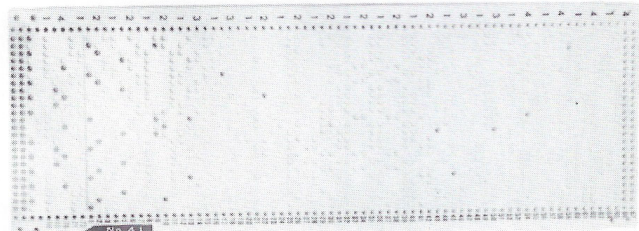
حامل الشد الفرعي

Branch Tension Stand



Punch Card Set (No. 41~50)

مجموعة البطاقات المثقبة (رقم ٤١ - ٥٠)



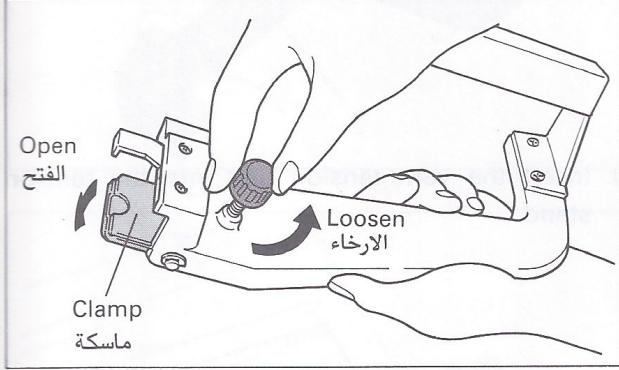
How to set and how to take off

كيفية الضبط وكيفية النزع

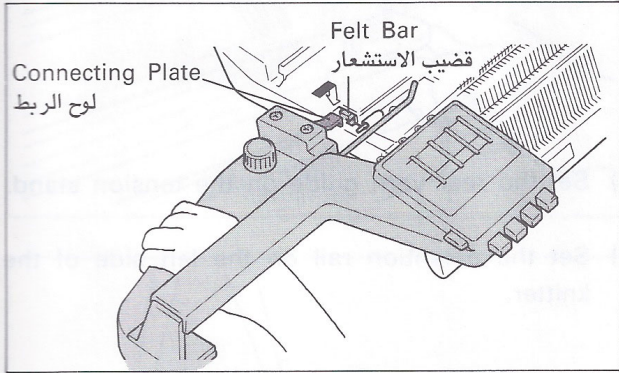
كيفية الضبط

① How to set

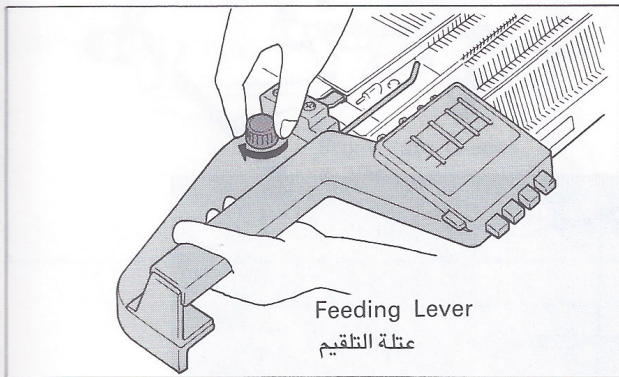
* After setting up the ribbing attachment to the knitter, set up the Colour Changer.



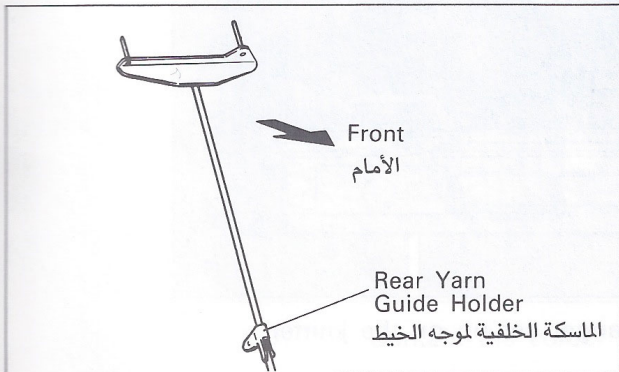
- ① (1) Loosen the setting knob as much as possible until the connecting clamp opens fully.



- ② (2) Push the projecting part of the connecting plate against the end of the felt bar and insert it as far as possible.



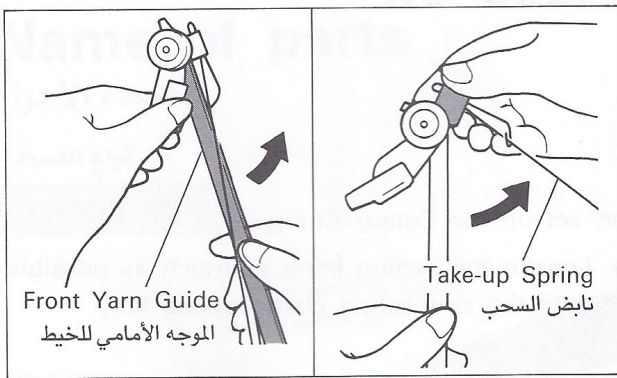
- ③ (3) Pressing the setting arm to the knitter, fasten the setting knob. Set all indicators to A position by pressing the release button. (If the indicator is in C position, turn the feeding lever to left so that the indicator will return to B position, then press the release button.) In this condition, any yarn hook will not work by the carriage movement.



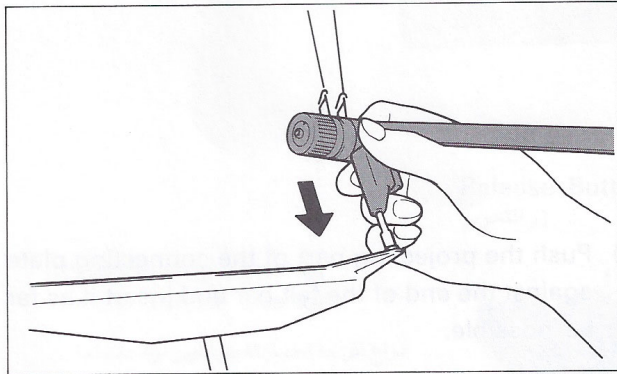
- ④ (4) Insert the branch tension stand in the hole for the yarn tension rod.

* Be careful with the front and back direction.

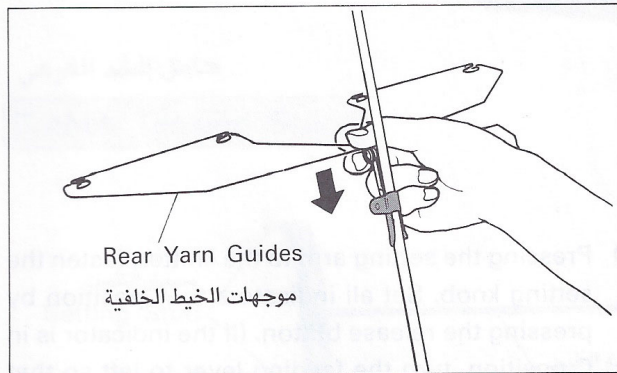
* Yarn tension unit provided as an accessory for the knitter is not used.



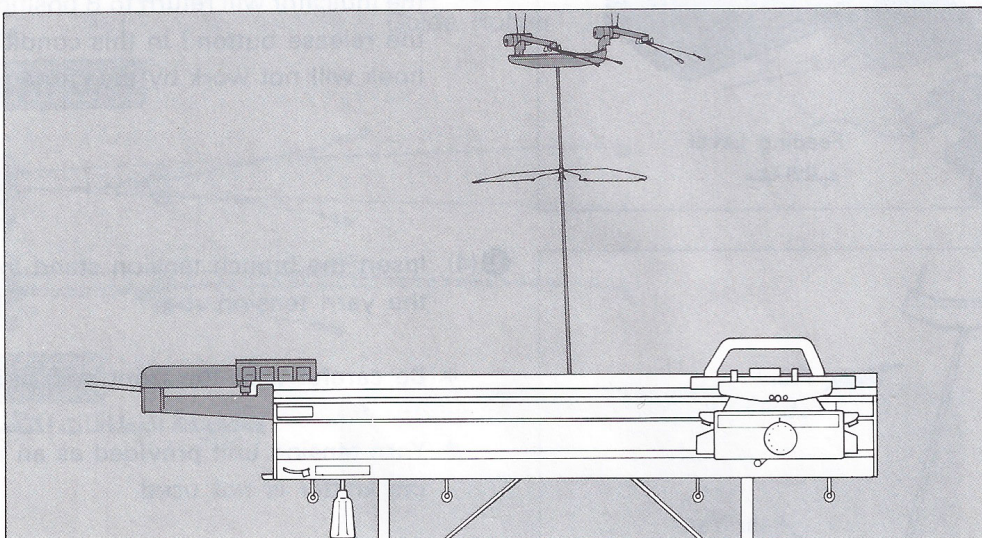
- ⑤ (5) Open the front yarn guide in the direction of the arrow.
- ⑥ (6) Turn the take-up spring until it clicks.



- ⑦ (7) Insert the yarn tension unit into the tension stand.



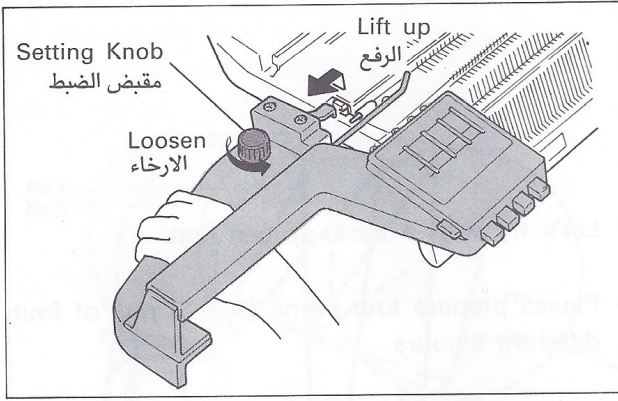
- ⑧ (8) Set the rear yarn guide on the tension stand.
- ⑨ (9) Set the extension rail on the left side of the knitter.



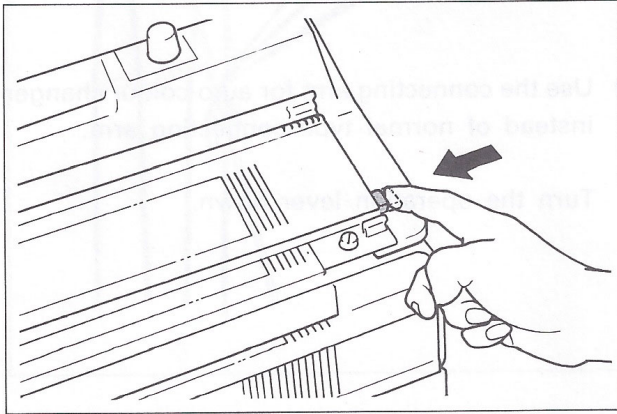
* The above shows the colour changer set up on the knitter.

كيفية النزع

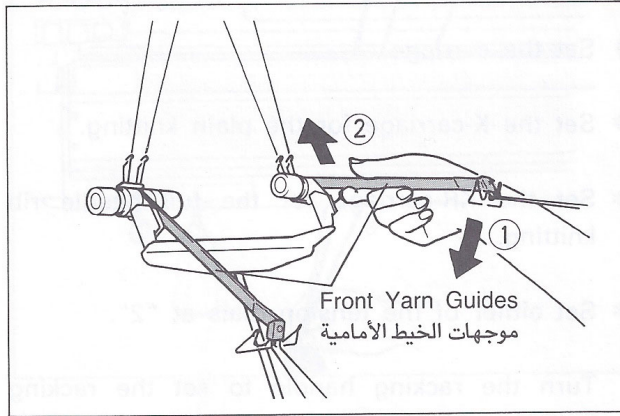
How to take off



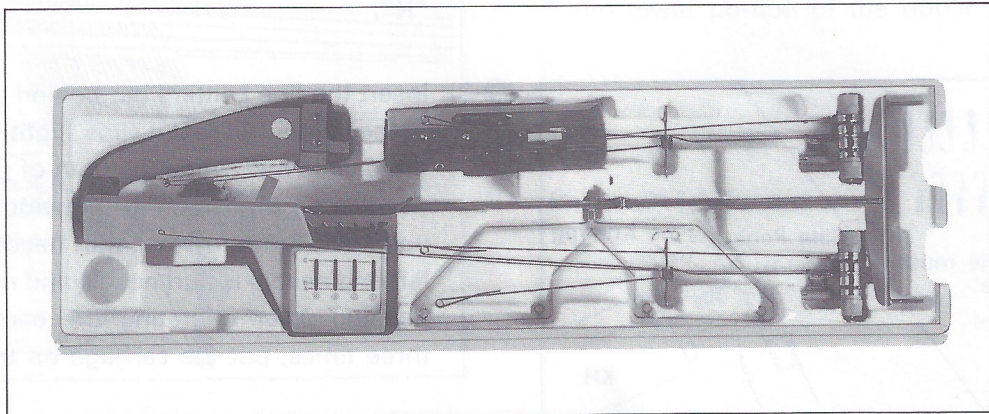
- ① (1) Loosen the setting knob on the setting arm. Lifting up the setting arm on the side of setting knob, pull out the setting arm. Push the release button to return the yarn hooks to resting position (A).



- ② (2) After the setting arm is released, push back the felt bar which has been pushed out on the right side of the knitter.



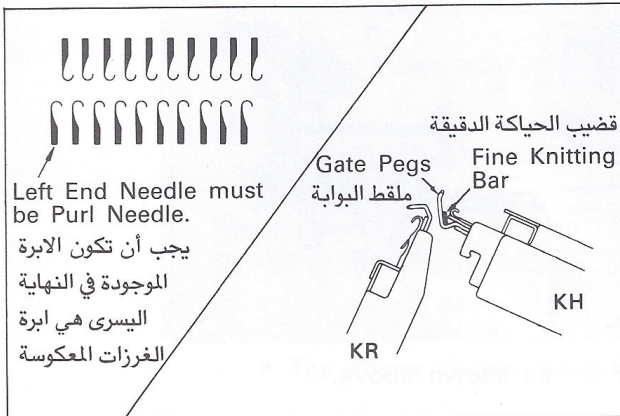
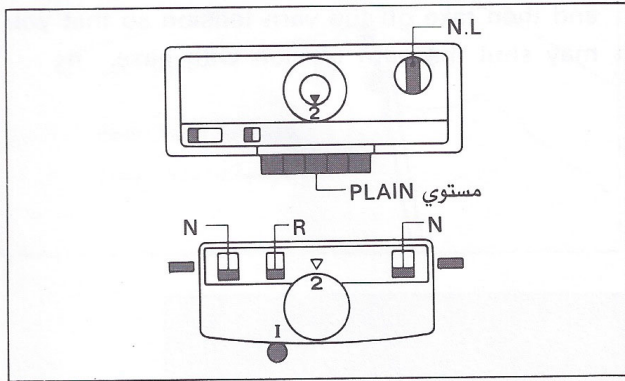
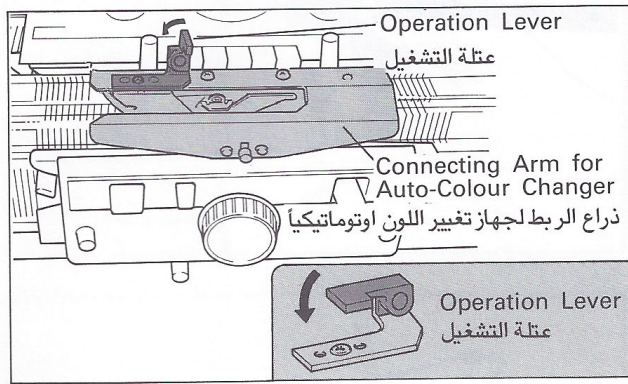
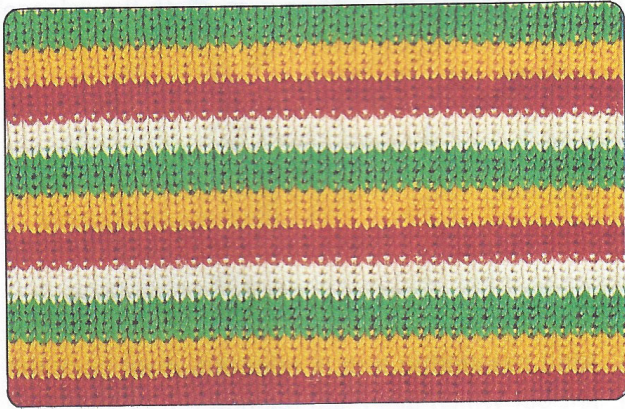
- ③ (3) Press down the front yarn guide on the knitter and then take off the yarn tension so that you may shut the yarn tension with ease.



* Contain the colour changer set as shown above.

How to knit stripes

كيفية حياكة الخطوط



* Let's try with a basic stripes first.

* Please prepare four yarns (2 or 3 ply) of four different colours.

① (1) Use the connecting arm for auto-colour changer instead of normal type connecting arm.

Turn the operation lever down.

② (2) Set the carriage.

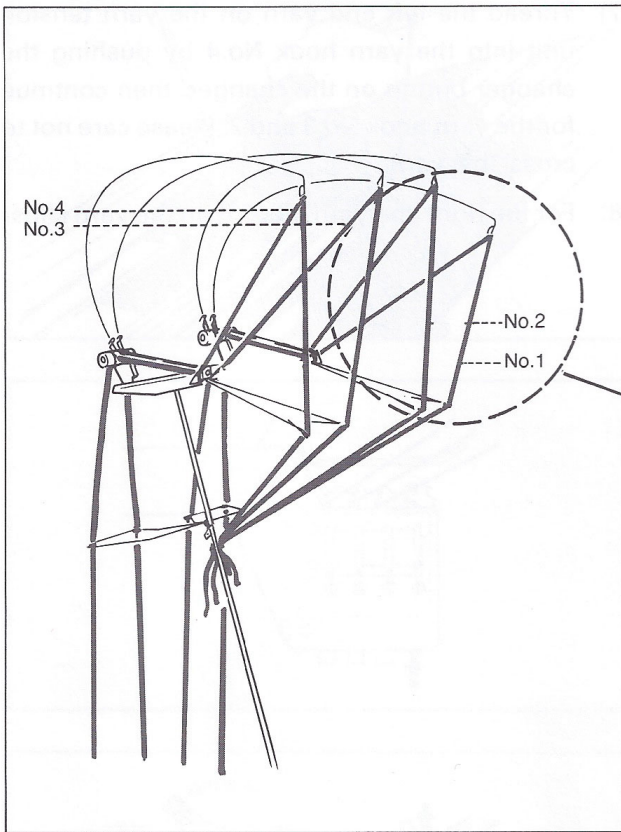
* Set the K-carriage for the plain knitting.

* Set the KR-carriage for the full needle rib knitting.

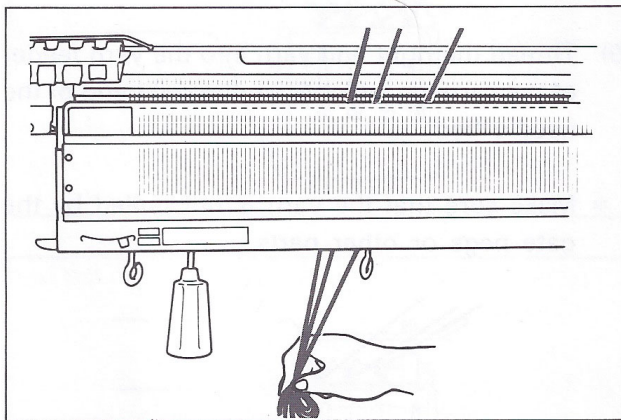
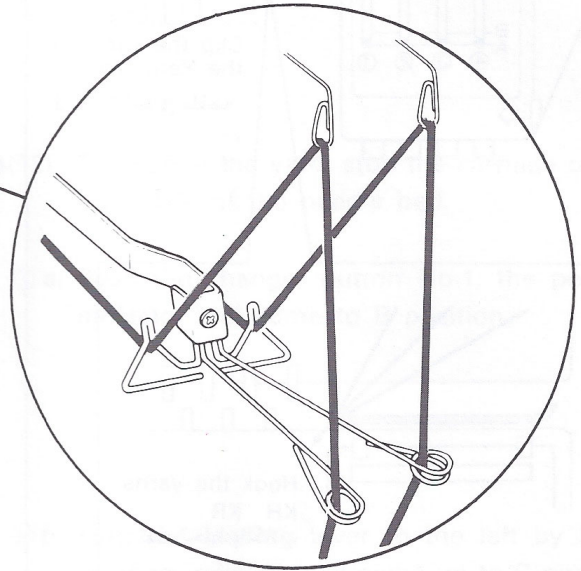
* Set either of the tension dials at "2".

Turn the racking handle to set the racking indicator at "5", and set the half pitch lever at "H".

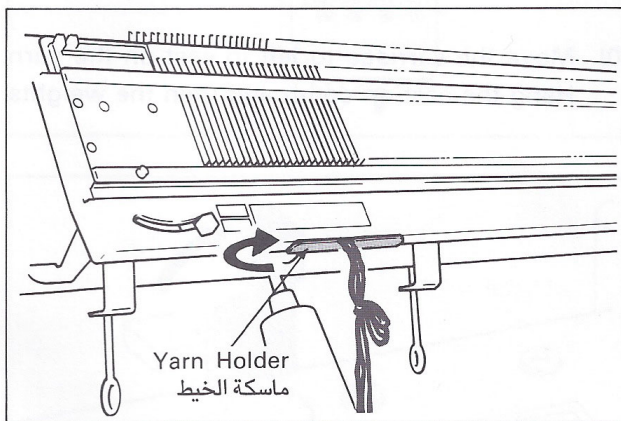
③ (3) Insert the fine knitting bar behind the gate pegs of the knitter. So that it slips slightly underneath the needle bed. Align the both of plain and purl needles on B-position in the width of the work you knit. (Bring forward purl needle so that the left end needle is purl needle and right end plain needle.) After operating the carriage two or three times, put the carriage on the right side.



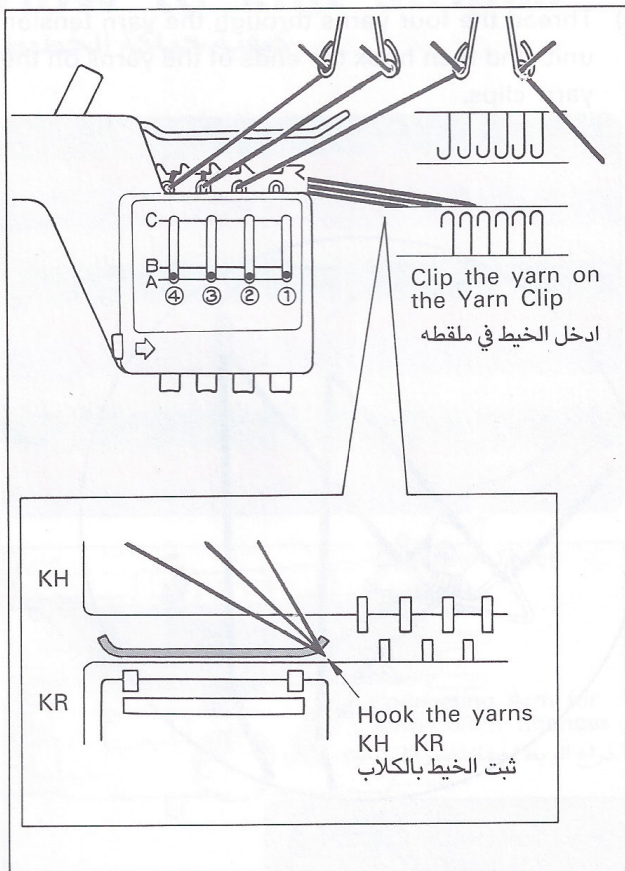
- ④ (4) Thread the four yarns through the yarn tension unit, and then hook the ends of the yarns on the yarn clips.



- ⑤ (5) Remove the ends of yarns from the yarn clips except right end yarn, and tie three yarns up. Pass it between the gate pegs.

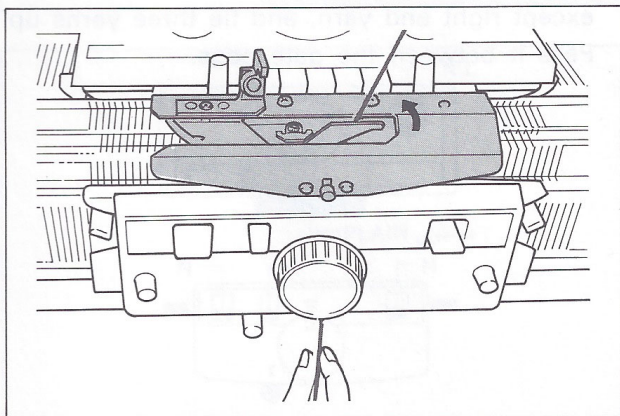


- ⑥ (6) Hold the ends of the yarns on the yarn holder on the lower portion of the ribber.



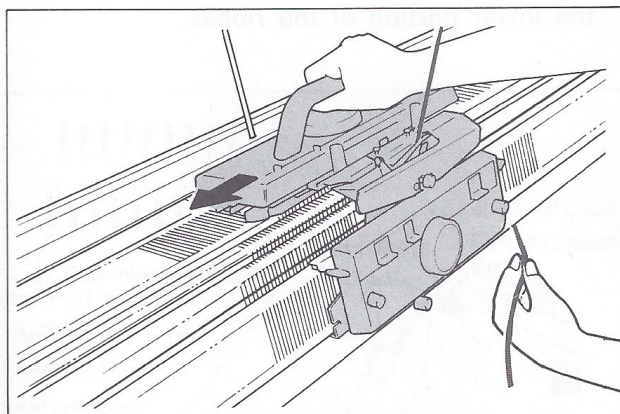
⑦ (7) Thread the left end yarn on the yarn tension unit into the yarn hook No.4 by pushing the changer button on the changer, then continue for the yarn hook No.3 and 2. Please care not to cross the yarn.

⑧ (8) For the right end yarn, hook it on the yarn clips.

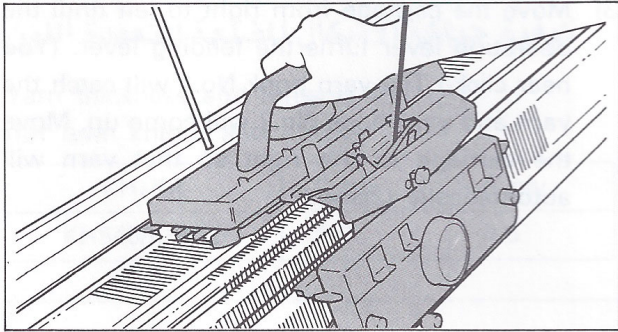


⑨ (9) Thread the right end yarn into the yarn feeder of the carriage which is on the right end of the needle bed.

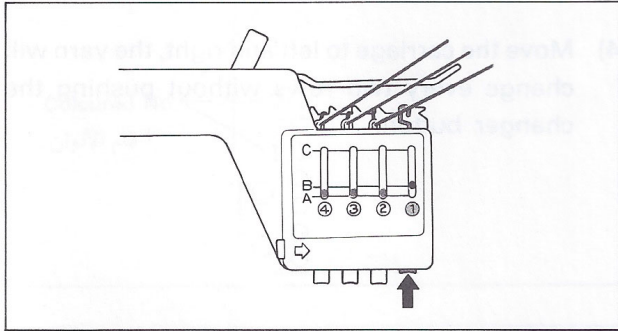
* Make sure that the yarn is not pulled by the gate pegs or other parts.



⑩ (10) Move the carriage to left to cast on the yarn. Hang the cast-on comb and then the weights.

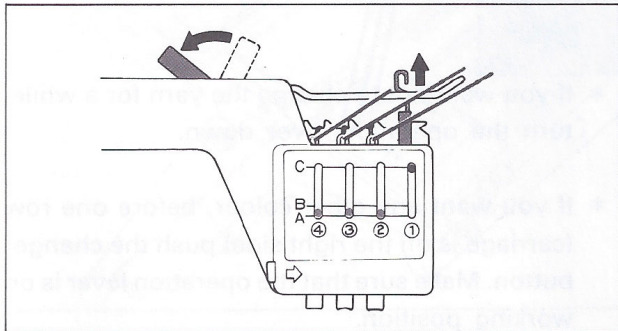


- Ⓜ (11) You can make the full needle rib knitting with yarn ① (right end one) by moving the carriage.

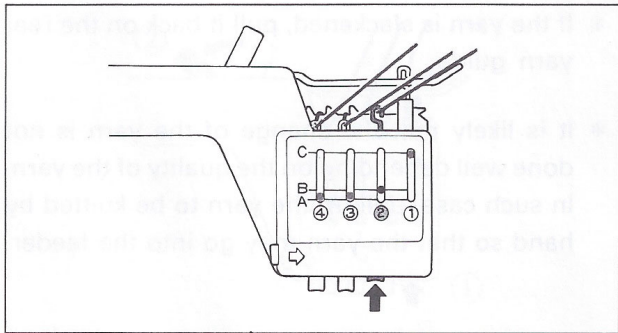


- Ⓜ (12) To change the yarn, stop the carriage on the right side of the needle bed.

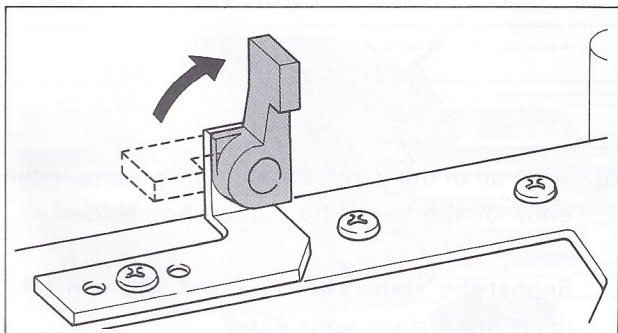
- ⓪ a. Push the changer button No.1, the position indicator will come to B position.



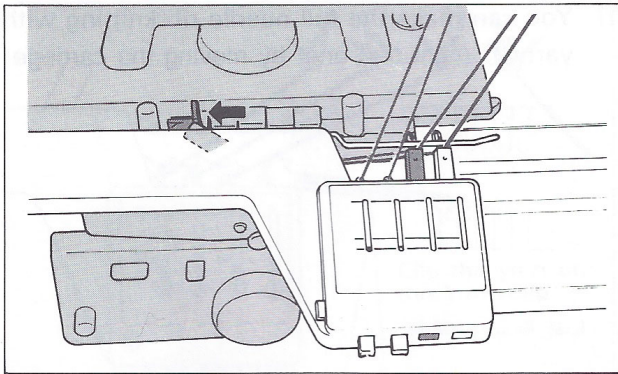
- ⓪ b. Turn the feeding lever to the left by hand, position indicator will come up to C position. (In this position, the yarn hook catches the yarn when knitting.)



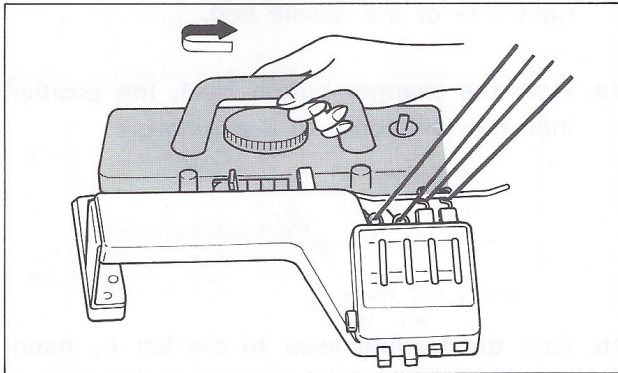
- ⓪ c. Push the changer button which has yarn you want to change form next row. (i.e. No.2) (The position indicator is in B position.)



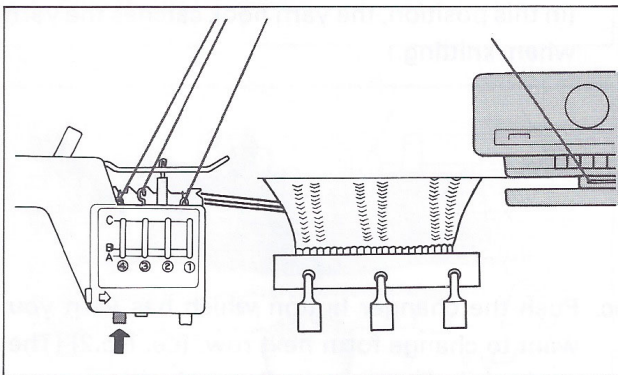
- ⓪ d. Turn the Operation lever to right. (working position)



- ⑬ (13) Move the carriage from right to left until the operation lever turns the feeding lever. (You hear click.) The yarn hook No.1 will catch the yarn and yarn hook No.2 will come up. Move the carriage to the right so that yarn will automatically change.



- ⑭ (14) Move the carriage to left and right, the yarn will change every two rows without pushing the changer button.

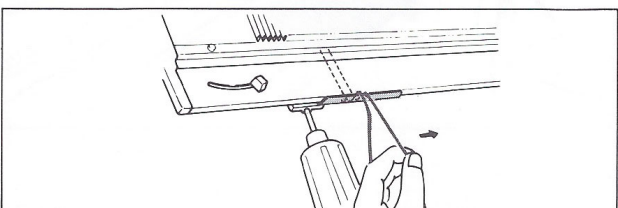
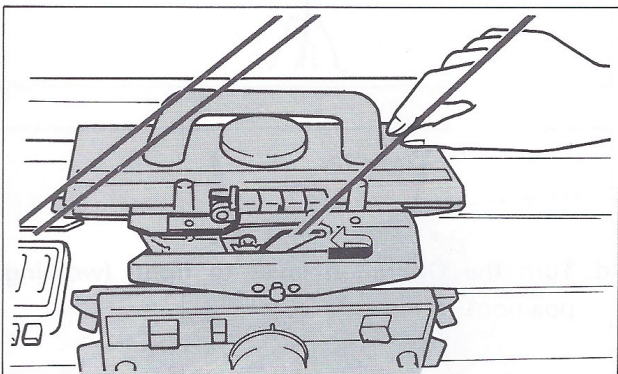


* If you want not to change the yarn for a while, turn the operation lever down.

* If you want any other colour, before one row (carriage is on the right side) push the changer button. Make sure that the operation lever is on working position.

* If the yarn is slackened, pull it back on the rear yarn guide.

* It is likely that the change of the yarn is not done well depending on the quality of the yarn. In such case, pull up the yarn to be knitted by hand so that the yarn may go into the feeder.



- ⑮ (15) After all of the yarns are knitted in, remove the ends of the yarns from the yarn holder.

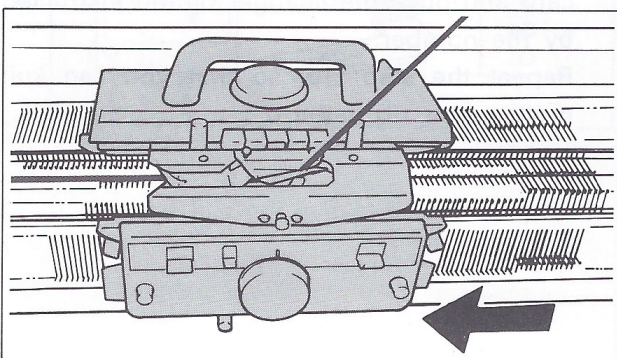
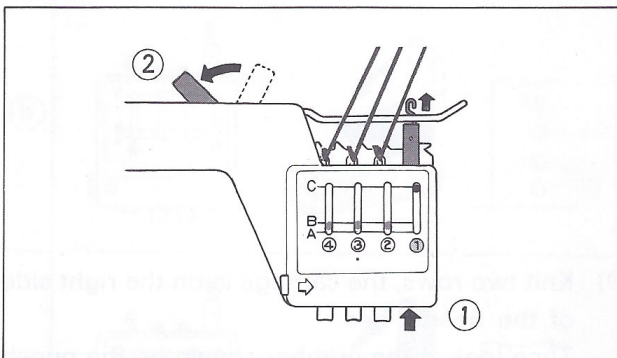
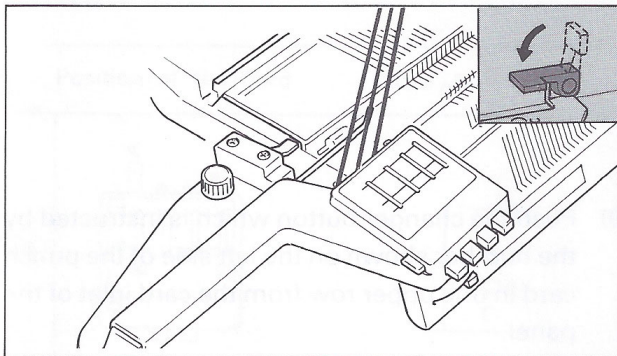
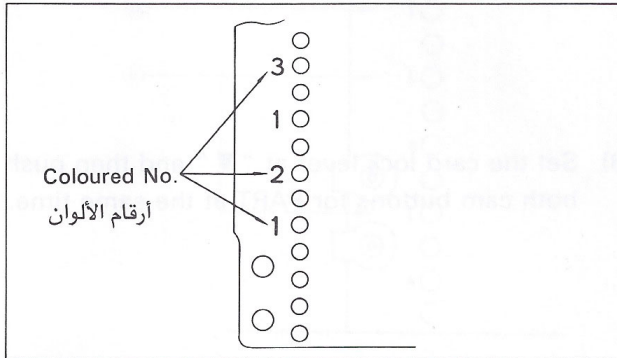
Repeat the steps (10)–(11) and you can produce the stripes with ease.

How to knit multi-colour rib

كيفية حياكة الأشكال المضلعة المتعددة اللون

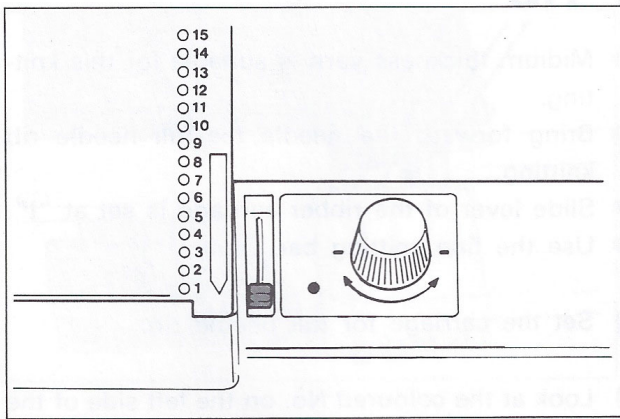
- ① Yarn thickness and tension dial.
(for both knitter and ribber)

KH/KR	2 ply	3 ply
KH840/KR830	2-3	4-5



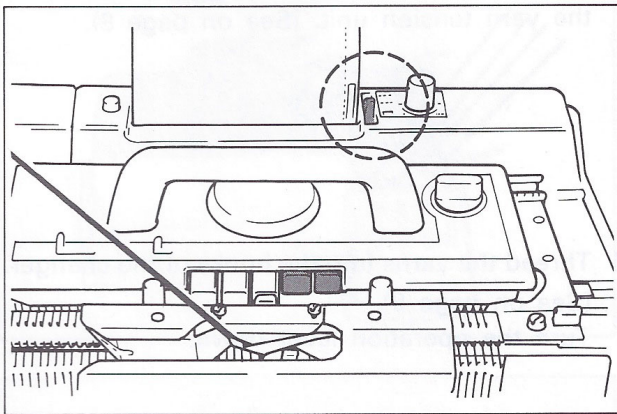
- * Midium thickness yarn is suitable for this knitting.
- * Bring forward the needle for full needle rib knitting.
- * Slide lever of the ribber carriage is set at "I".
- * Use the fine knitting bar.

- ① (1) Set the carriage for full needle rib.
- ② (2) Look at the coloured No. on the left side of the punch card and thread the necessary yarns to the yarn tension unit. (See on page 8).
- ③ (3) Thread the yarns into the hooks of the changer. (See on page 9). Turn the operation lever down.
- ④ (4) Push the changer button No. 1 and turn the feeding lever to the left by hand, position indicator will come up to C position.
- ⑤ (5) Thread the main yarn into the yarn feeder of the carriage and then operate to cast on. The way of first row knitting is the same as for knitting stripes. After knitting the correct number of the rows for the welt, finish with the carriage on the left side.

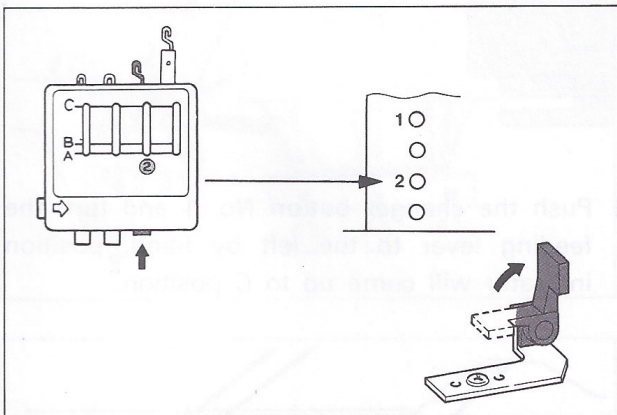


①(6) Set the card for the start and then set the card lock lever at "●".

②(7) Set the change knob for "KC", and then move the carriage to right by one row. Thus, the knitting needles are selected.

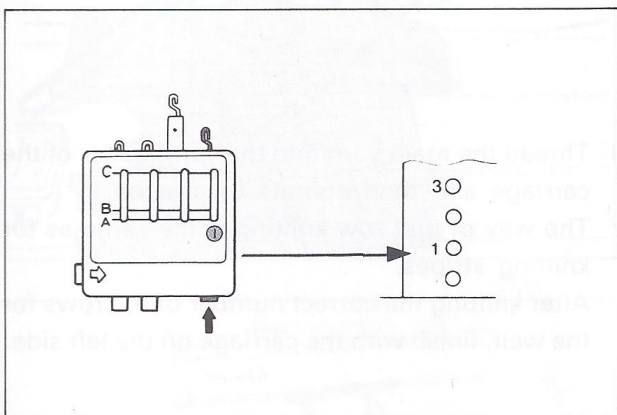


③(8) Set the card lock lever at "▼" and then push both cam buttons for PART at the same time.



④(9) Push the changer button which is instructed by the number shown on the left side of the punch card in one upper row from the card inlet of the panel.

Turn the operation lever to right.



⑤(10) Knit two rows, the carriage is on the right side of the needle bed.

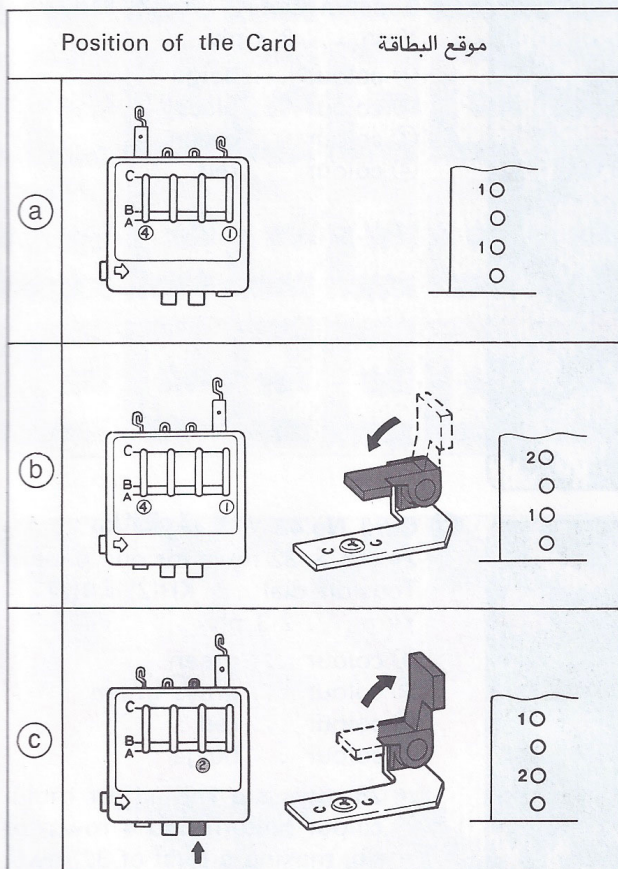
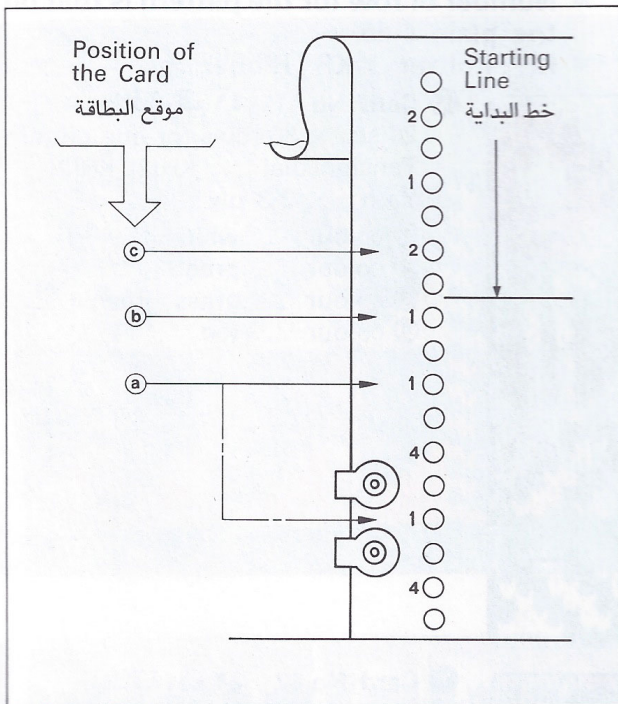
Then look at the number shown on the punch card and push the changer button instructed by the number.

Repeat the step (10) so that you can knit multi-colour rib pattern.

Exceptional case for yarn changing

Since the selected changer buttons (Their position indicators are in B or C position.) will be exchanged every two rows automatically by the auto-colour changer and carriage movement.

However if the same coloured No. has been continued, you have to operate some steps by hand.



Position ① :

No need to operated by hand, continue the knitting.

Position ② :

For this row, the changer button No.1 is already in working position, turn the operation lever down. (If you do not turn the operation lever down, the changer button will be change for No.4.)

Position ③ :

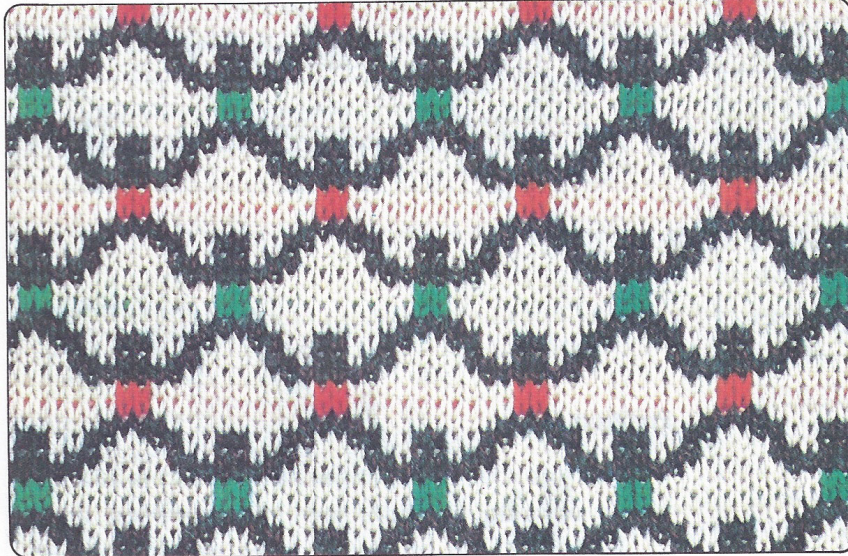
Push the changer button No.2 and turn the operation lever to right.

نماذج من الاشكال المضلعة المتعددة الألوان

① Variety of multi-colour rib knitting



- ① Card No.41 بطاقة رقم ٤١
24 sts. × 36 rows for one pattern
Tension dial ... KH(2) KR(2)
Yarn ... 2-3 ply
① colour ... white
② colour ... green
③ colour ... grass green
④ colour ... red



- ② Card No.42 بطاقة رقم ٤٢
12 sts. × 12 rows for one pattern
Tension dial ... KH(2) KR(2)
Yarn ... 2-3 ply
① colour ... beige
② colour ... black
③ colour ... green
④ colour ... red



- ③ Card No.43 بطاقة رقم ٤٣
24 sts. × 32 rows for one pattern
Tension dial ... KH(2) KR(2)
Yarn ... 2-3 ply
① colour ... green
② colour ... grass green
③ colour ... red
④ colour ... beige

* 28 rows are knitted for multi-colour pattern and 4 rows for rib, making a total of 32 rows.



بطاقة رقم ٤٤ Card No.44

8 sts. × 12 rows for one pattern
Tension dial ... KH(2) KR(2)
Yarn ... 2-3 ply

- ① colour ... sky blue
- ② colour ... grass green
- ③ colour ... yellow
- ④ colour ... white

* Contrast colour yarn is changed for each pattern in the direction of the row until three pattern. The number of the row for the colour pattern is 36 (12×3).



بطاقة رقم ٤٥ Card No.45

8 sts. × 12 rows for one pattern
Tension dial ... KH(2) KR(2)
Yarn ... 2-3 ply

- ① colour ... white
- ② colour ... black
- ③ colour ... brown
- ④ colour ... beige

* 10 rows are knitted for multi-colour pattern, and 2 rows for rib knitting and one pattern is completed with 12 rows. As the yarn is changed for each pattern in the direction of the row until two patterns, the number of the row is 24 (12×2).



بطاقة رقم ٤٦ Card No.46

24 sts. × 24 rows for one pattern
Tension dial ... KH(2) KR(2)
Yarn ... 2-3 ply

- ① colour ... white
- ② colour ... red
- ③ colour ... dark green
- ④ colour ... orange



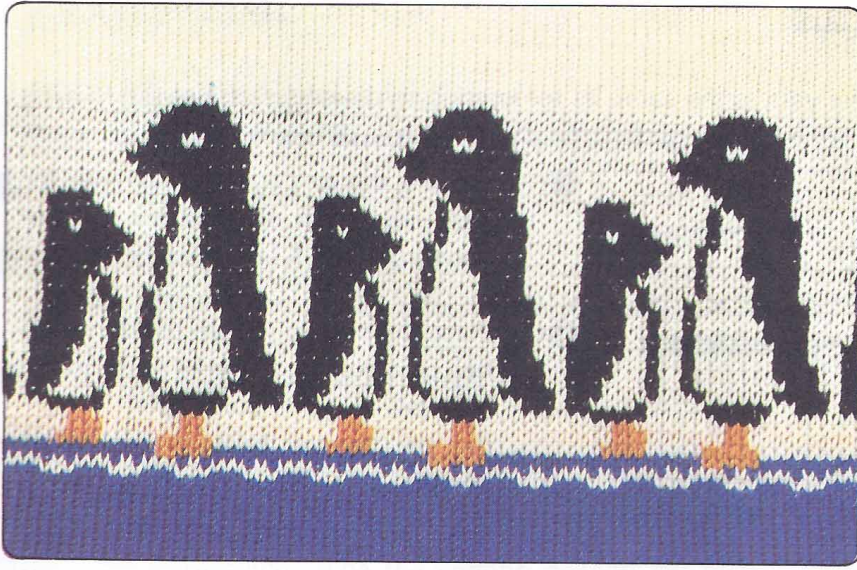
- Card No.47** بطاقة رقم ٤٧
 24 sts. × 24 rows for one pattern
 Tension dial ... KH(2) KR(2)
 Yarn ... 2-3 ply
 ① colour ... dark blue
 ② colour ... yellow
 ③ colour ... red
 ④ colour ... orange



- Card No.48** بطاقة رقم ٤٨
 12 sts. × 12 rows for one pattern
 Tension dial ... KH(2) KR(2)
 Yarn ... 2-3 ply
 ① colour ... white
 ② colour ... gray
 ③ colour ... dark blue
 ④ colour ... red
 * The main yarn is changed from ① to ②, and from ② to ① on the way of the pattern every six rows.



- Card No.49** بطاقة رقم ٤٩
 24 sts. × 24 rows for one pattern
 Tension dial ... KH(2) KR(2)
 Yarn ... 2-3 ply
 ① colour ... orange
 ② colour ... white
 ③ colour ... dark blue
 ④ colour ... yellow
 * This pattern is produced by changing the second colour yarn to the third row one after the card turns round, and to the fourth yarn after another turn of the card. So 72 rows are knitted for the colour pattern.



بطاقة رقم ٥٠ Card No.50

24 sts. × 36 rows for one pattern

Tension dial ... KH(2) KR(2)

Yarn ... 2-3 ply

① colour ... dark blue

② colour ... orange

③ colour ... white

④ colour ... black

* The main yarn is changed from

① to ③ on the way of the

pattern. For the picture pattern,

make the rib knitting for the sea

(dark blue) and the sky (white)

before and after the pattern

depending on your tast.

نموذج النقطة الواحدة

One point pattern



بطاقة رقم ٥٠ Card No.50

24 sts. × 36 rows for one pattern

Tension dial ... KH(2) KR(2)

Yarn ... 2-3 ply

① colour ... dark blue

② colour ... orange

③ colour ... white

④ colour ... black

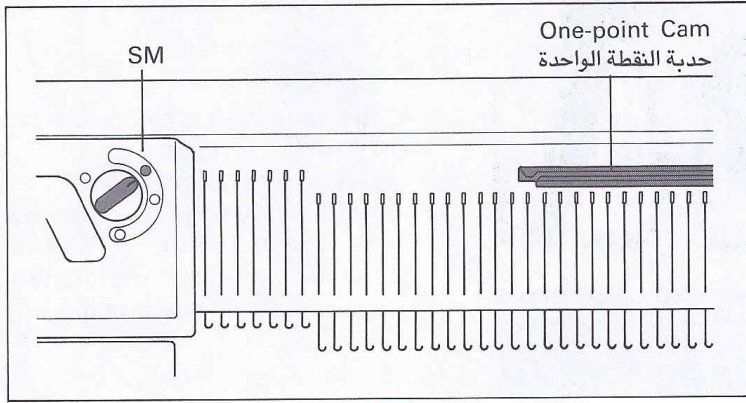
* Refer to "How to knit the one

point pattern" on next page.

How to knit one point pattern

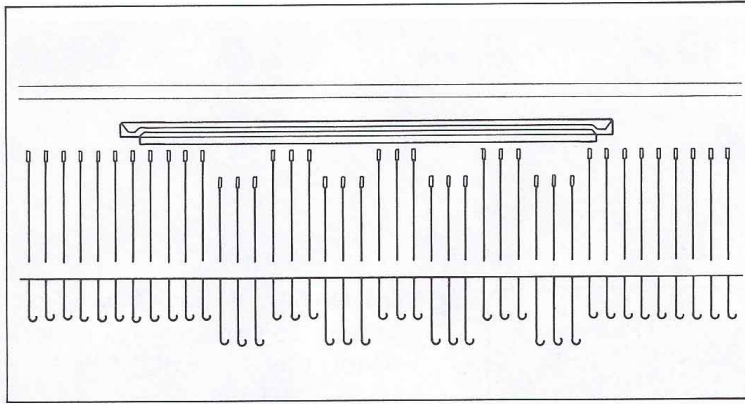
كيفية حياكة الاشكال ذات النقطة الواحدة

- ① The ways of casting-on and changing the yarn is the same as for knitting multi-colour rib but the knitting needles arrangements for eliminating unnecessary pattern on the knitter is different.



- ① (1) Prepare the carriage and changer for multi-colour rib. (Follow the instructions from 1 to 6 on pages 10 and 11.)

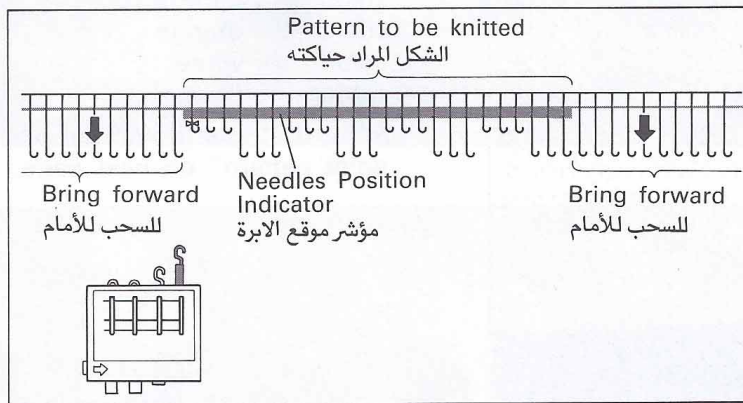
- ② (2) Place the one-point cam at the needle bed by adjusting to the ◀▶ mark on the rear rail and one-point cam. Set the change knob to the "SM" position.



- ③ (3) Move the carriage to the right. The needles in B position where the one-point cam is set are selected to position B and D by moving the carriage.

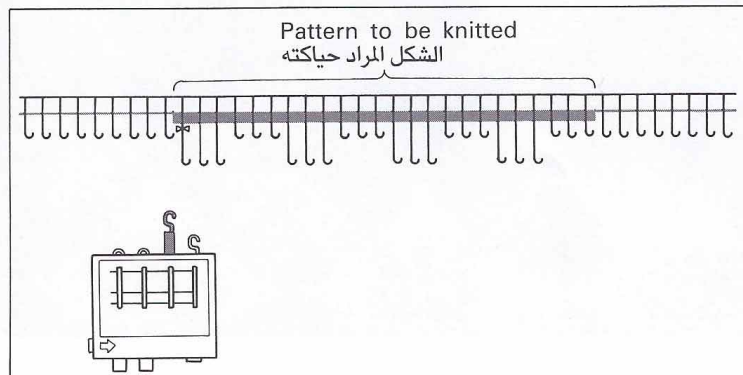
- ④ (4) Set the card lock lever to the ▼ mark. Push both PART buttons.

- ⑤ (5) When the changer button for the main yarn is pushed (button No.1) bring forward the needles where the pattern is not required from B position to D position.



- * It is easy to see which needles should be brought forward if you use the needle selection mark on the needle position indicator.

- * According to the number shown on the punch card, push the changer button. Then turn the operation lever to the right and move the carriage to knit.



- ⑥ (6) When the changer button for the contrasting yarn (other buttons except button No.1) is pushed, move the carriage without any needle adjusting.

- ⑦ (7) Since knitting 2 rows each with same colour yarn, repeat steps from (5) to (6) twice.

Important points to remember

نقاط جديرة بالتذكر

كيفية تصحيح خطأ في حياكة الاشكال

① How to correct an error in the pattern knitting

- ① (1) Set the card lock lever at "●".
- ② (2) Remove both of the knitter and ribber carriages and put them on the right side of the work. (For how to take off and set, please refer to the instruction manual of the ribber.)
- ③ (3) Turn the operation lever down.
- ④ (4) Unravel the incorrect row. Putting the ends of all yarns on the left side, thread each of the yarns into respective buttons on the colour changer.
- ⑤ (5) After unravelling, aline the knitting needles for both of the knitter and the ribber on B position.
- ⑥ (6) Rewind the punch card as many rows as you unravelled.
- ⑦ (7) Leave the knitter carriage as is. (Cam button : PART L, R change knob : KC) Set the cam buttons R, L on the ribber carriage for P. R. (Leave the tucking lever for R.)
- ⑧ (8) Move the carriage from right to left. (The yarn is free from the yarn feeder this time.) (The plain needles are selected.)
- ⑨ (9) Set the cam levers R, L on the ribber carriage at N.
- ⑩ (10) Set the card lock lever at "▼".
- ⑪ (11) Turn the operation lever to the right and thread the yarn into the yarn feeder according to the number shown on the punch card.

* If you find an error in pushing the changer button of the colour changer before the carriage is not on the work.

In case of the carriage is moving from left to right.

To prevent the punch card from forwarding, set the change knob on the carriage to N.L and then return the carriage to the yarn changing position. According to the number shown on the punch card, reset the changer button and yarn correctly. Set the change knob to KC, push both PART buttons and operate the carriage.

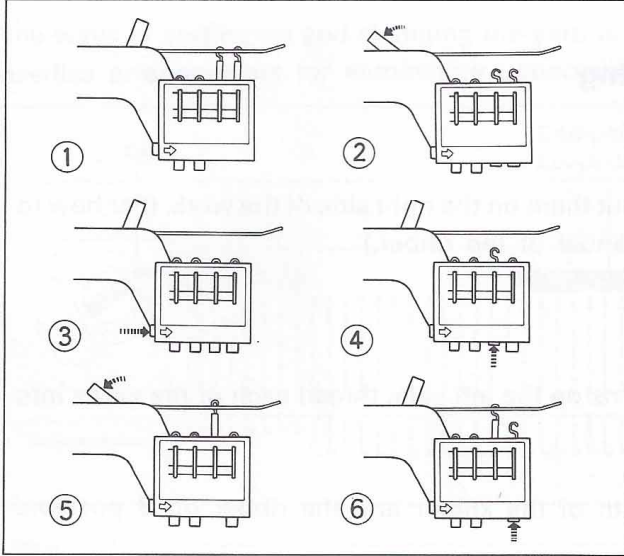
In case of the carriage is moving from right to left.

Reset the changer button correctly.

* When you use the knitting machine as a single bed machine, remove the auto-colour changer form the knitting machine.

كيفية تصحيح زر التغيير

Ⓒ How to correct the changer button



Ⓒ Push the changer button which will be changed for from the next row and pass the yarn into the yarn hook.

If more than 2 indicators come up to B position

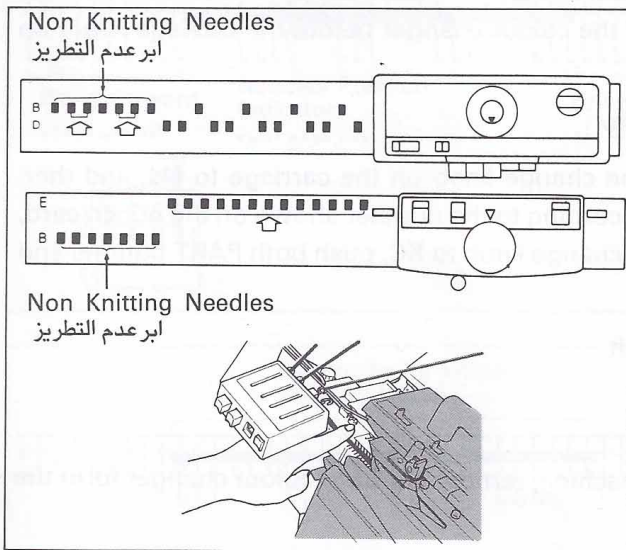
Simply push release button, all indicator come to A position, then operate the steps from ④~⑥.

الحياكة الجزئية للتضليع المتعدد اللون

Ⓒ Partial knitting of multi-colour rib.

Explanation is made on the left side partial knitting.

- ① (1) Put the carriage on the right side after you continued knitting.
- ② (2) Set the cam lever R. L of the ribber carriage for P. R.
(Tucking lever is set at R and holding cam lever R. L is at N.)



- ③ (3) Bring the knitting needles selected at non-knitting position back to B position and bring forward the purl needles for the knitting to E position.
- ④ (4) Move the carriage to left and then change the yarn.
- ⑤ (5) Bring the knitting needles selected at non-knitting position back to B position and bring forward the purl needles for knitting to E position.
- ⑥ (6) Holding the non-knitting yarn from the colour changer so as to pass it through the gate pegs by hand (Hereafter this operation is repeated.) and then move the carriage to right.

Now you completed first row with partial knitting. From now on, with increasing or decreasing the non-knitting needles, repeat steps (3) to (6).

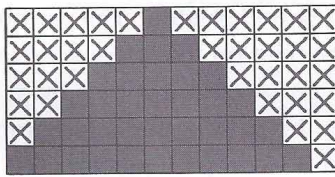
The right side partial knitting is done in the same way as for left side one. But there is no need to hold the non-knitting yarns between the gate pegs.

How to produce a punch card for multi-colour rib

كيفية عمل البطاقة المثقبة للتضليع المتعدد اللون

* One row of Multi-colour Rib is performed by knitting each yarn separately. Therefore, it is not possible to use the normal type of re-punched card or the patterns direct from the pattern book. It is necessary to change the format of the punched holes by using the following method: —

Basic Card
البطاقة الاساسية



■ Contrast yarn
الخيوط المتباين

× Main yarn
الخيوط الرئيسي

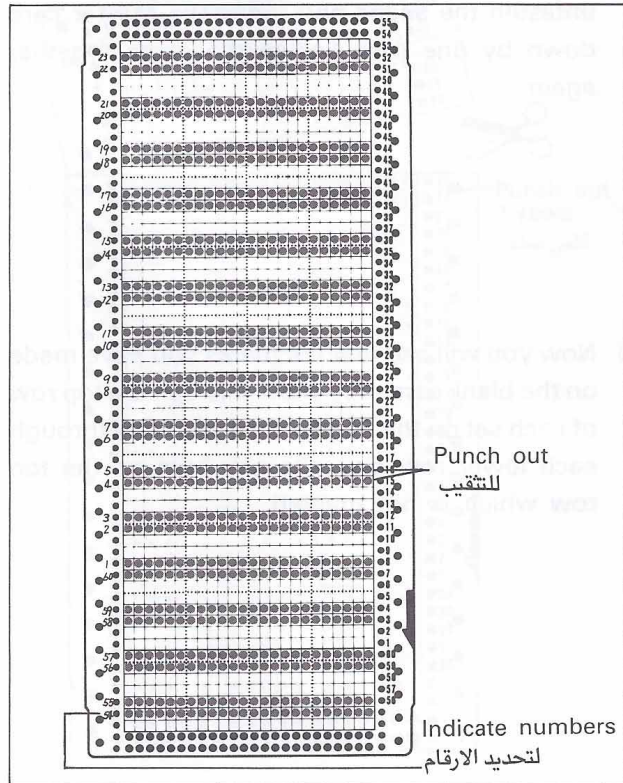
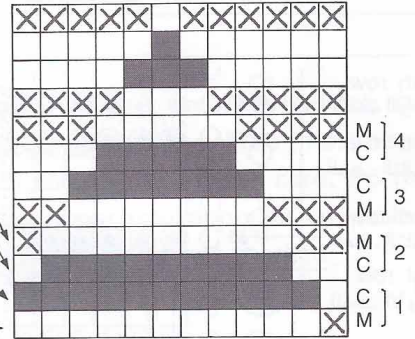
Main yarn for 2nd row
الخيوط الرئيسي للصف الثاني

Contrast yarn for 2nd row
الخيوط المتباين للصف الثاني

Contrast yarn for 1st row
الخيوط المتباين للصف الأول

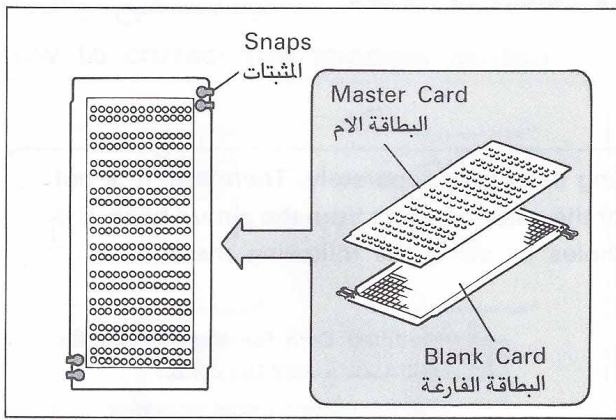
Main yarn for 1st row
الخيوط الرئيسي للصف الأول

Modified Card for Multi-colour Rib
بطاقة معدلة للتضليع المتعدد اللون

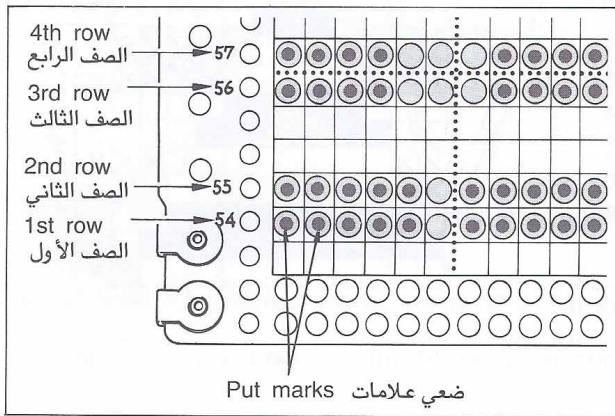


① (1) First of all prepare a Master Card as per the figure on the left. This is used to prepare punch cards for multi-colour rib. You will see that working from the bottom of the card, upwards, one row is left blank then two rows are punched out, then two rows are left blank, then two rows punched out and so on. Again working upwards, number each row you have punched out on the left hand side of the card starting with the number 54 then 55, 56, 57, 58, 59, 60, 1, 2, 3 etc. up to 23.

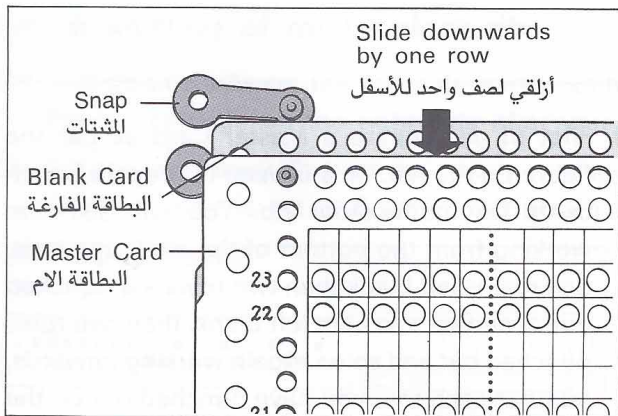
* Blank card and Puncher are available separately.



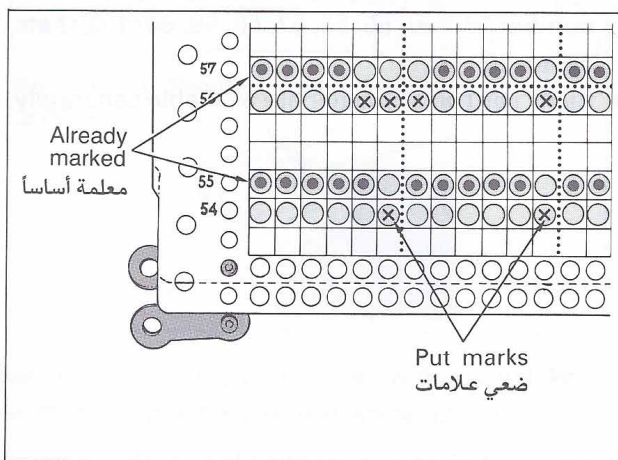
- 2 (2) Take a blank card and put the master card which you have produced on top of this and fasten them together with your plastic punch card snaps.



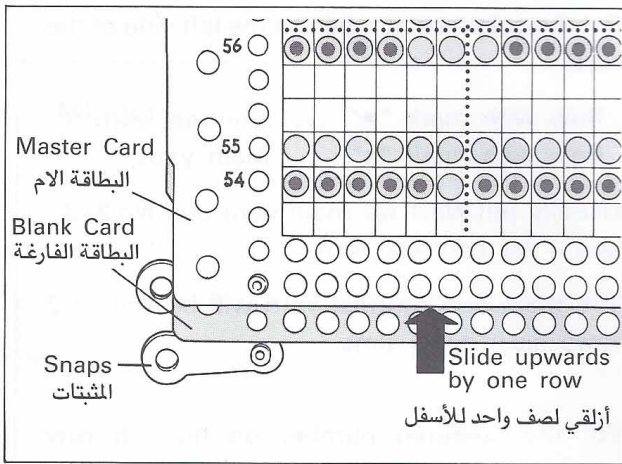
- 3 (3) You are now ready to copy your pattern. This is done by marking the holes to be punched, through the punched holes on the master card, onto the blank card underneath. The numbers which you have marked on the left side of your master card are the rows to be copied from the pattern diagram in the pattern book, remembering that rows 54 and 55 on your master card are the first two rows on the pattern diagram. (These have no numbers against them on the diagram). Row 56 and 57 on your master card are rows 56 and 57 on the diagram and so on until the master card is completed.



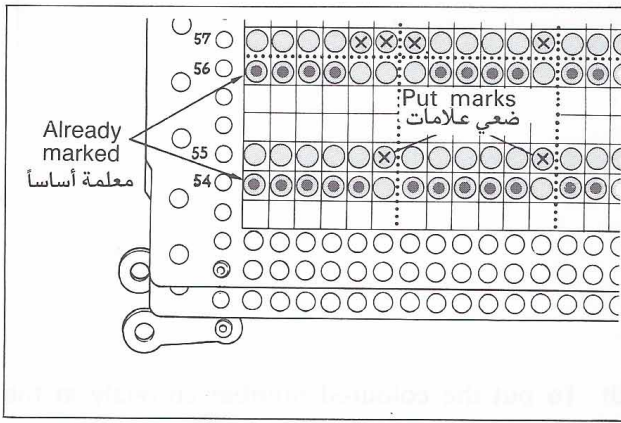
- 4 (4) When the master card is completely marked, unfasten the snaps and move the master card down by one row. Fasten the cards together again.



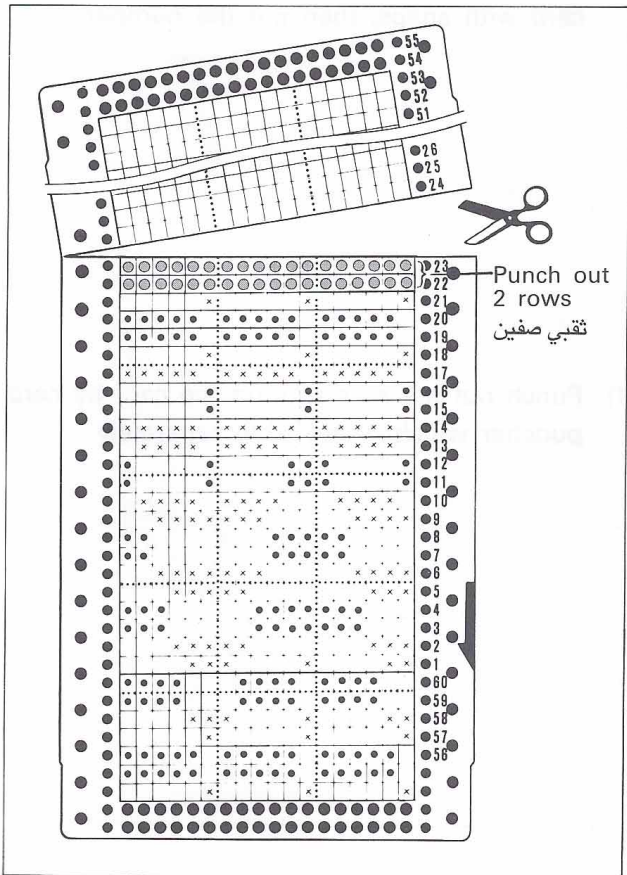
- 5 (5) Now you will see that the marks you have made on the blank card only show through the top row of each set on the master card. So mark through each lower row opposite any hole on the top row which is not marked.



- ⑥ (6) Again after completing the card, unfasten the snaps and slide the master card up by two rows. (This has taken the master card back to its original position, and then up by one row.)

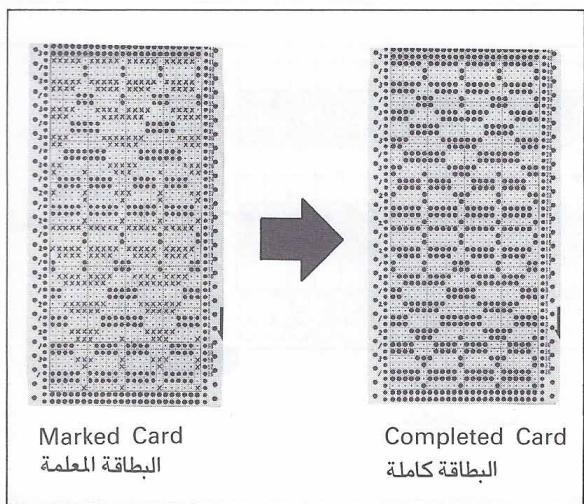
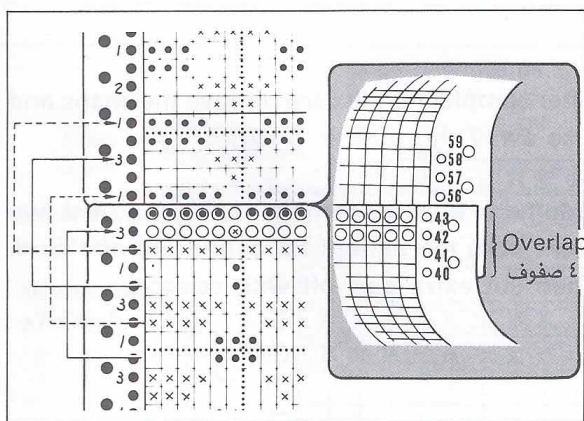
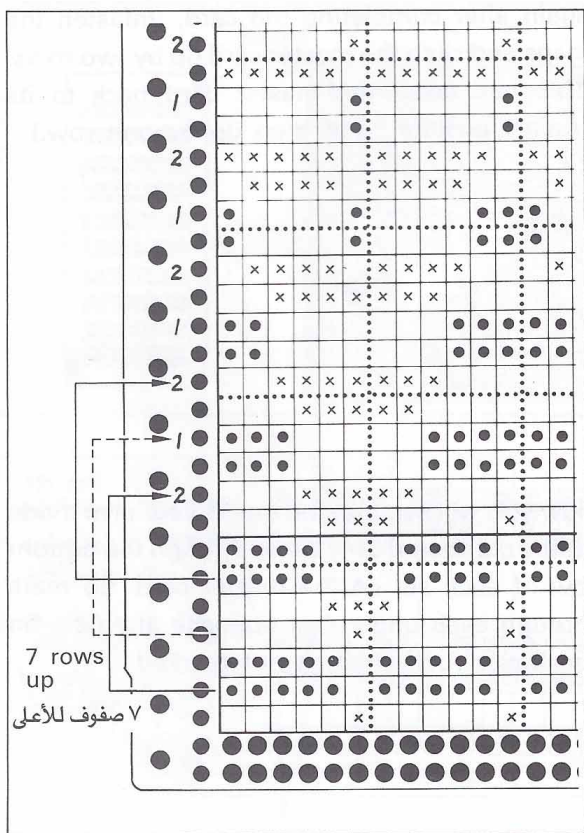


- ⑦ (7) Now you will see that the marks you have made on the blank card only show through the bottom row of each set on the master card. So mark through each upper row opposite any hole on the lower row which is not marked.



- ⑧ (8) After completing the card remove the snaps and take away the master card.

If some extra rows remain, punch out next two rows from the pattern for connecting the card. Then cut extra part off with scissors.



9) Put the coloured number on the left side of the card.

Row with mark "●" ... Contrast yarn
Row with mark "x" ... Main yarn

Usually put No.1 for main yarn and No.2, 3 and 4 for contrast yarn.

The main and contrast yarn will be knitted 2 rows each every time.

Put the coloured number on the 7th row upwards from actual marked row.

10) To put the coloured number correctly at the connecting part of the card, if you connect the card with snaps, then put the number.

11) Punch out the all marks on the card by card puncher which is available separately.

Ⓐ KRC-840
452-840
495840-069
Printed in Japan

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