ORIGINAL PATTERNS

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2 × 2 rib  P. 25

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## ORIGINAL PATTERNS
Setting up Your Ribber to the Knitter

1. Secure the knitter onto a flat table using the Table clamps provided as an accessory for the ribber.
   ① Insert the top of the thumb screws of the table clamps into the holes on the back of the knitter.

2. Fasten the screws.

3. Secure the Table clamps onto the table to tilt the knitter.
2 Put the KR Setting plates to the knitter.

① Remove the thumb screws from the KR setting Plates.

② Insert them into the holes of both sides of the knitter. (Be careful of the R and L marks on the plates. R stands for right and L stands for left.)

③ Screw the KR Setting plates temporarily.

④ Push the Setting plates stopper until they touch ③ and screw the Plates tightly with the Spanner.
3 Insert the shaft of the Grip handle into the Grip handle holder, and turning the Grip handle, push it in until you hear the "click".
   * After setting the Grip handle, please check the working of the Grip handle by turning it.

4 Holding the ribber with both hands so that the gate pegs of the ribber are up and the purl needle butts are toward you.
   Insert the lip of right Bracket beneath the knitter bed a little and insert the both Brackets as far as they will go.

5 Set up the Reinforcing arms of the Brackets, and place the flat parts of the arms on the table.

6 Using the Clamps of KH, fasten the arms to the table.
7 Place the rear foot of the KR carriage into right end of the rear rail of the needle bed, and keeping off the carriage from the Stopper pin move the KR carriage to left as shown in the Fig.

8 Set the front foot of the KR carriage to the front rail of the needle bed. Please check whether the KR carriage moves on the needle bed smoothly.

9 Loosen both thumb screws of KH carriage and fit the Connecting arm.

10 Fasten the thumb screws.
11 Move the KH carriage toward the KR carriage slowly so that both carriages connect with the Connecting arm automatically.

12 Set up the Yarn tension unit

① Take off the head of Yarn tension unit and put it to the rod reversely.

② Turn the rear yarn guide opposite to the side on which the rear yarn guide is set when you use the knitter without attaching the ribber.

③ Insert the end of the rod into the stand hole at the center of the machine.

Look at the picture and be careful of the direction of the rod.
• Now you have finished setting up the ribbon to the knitter.
1 **Disconnecting the carriage**
Push down the Connecting pin and slide the KH carriage (or KR carriage), to disconnect from KR carriage (KH carriage).

2 **Taking off the connecting arm**
Loosen the thumb screws and pull the Connecting arm towards you by lifting the arm up slightly. Then, take off the Connecting arm.

3 **Taking off the KR carriage**
After disconnecting the KR carriage from the KH carriage, move the KR carriage to right end of the needle bed by keeping off the front foot from the needle bed as shown in the figure.

4 **Loosen the screws and take off the KH Clamps.**
5 Hold up the lower side of the ribber a little and pull it toward you. You can take it off.
* Leave the KR Setting plates.

Remove the Grip handle by pulling it straight.
* When you put away ribber. Set the Racking indicator to P6.

- When you put away the machine without removing the KR Setting plates, Fix the KH Carriage with R Carriage lock.
  ① Adjust ① to the left side of KR Setting plates.

  ② Loosen the left knob of KH Carriage and Put ① in the KR Setting plate and ③ around the axis at the same time.

  ③ Insert the R Carriage lock as far as it goes and screw the knob.
Names of Parts

Tucking Lever
This lever has two positions.
P: For making tuck stitch (Half fisherman's rib, Full fisherman's rib)
R: For normal and circular knitting.

Cam Lever
This lever has two positions.
P.R.: The needles don't work (For the circular knitting or the selvedge)
N: The needles work (For the normal knitting).

Holding Cam Lever
This lever has two positions.
E=: For the normal pattern (The needles in E position work)
E: For partial knitting (The needles in E position do not work)

Slide Lever
This lever has two positions.
I: For looser stitch
II: For firmer stitch

Connecting Pin

Tension Dial
It is used for arranging the size of the stitches according to the yarn or the pattern.

Bracket
Stopper Pin
Gate Pegs
Purl Needles
Racking Indicator
Needle Bed
Yarn Rest
Bracket Lever
- **Accessories**
  - **Connecting Arm Assembly**
    - It is used for connecting the KH carriage and the KR carriage.
  - **R Carriage Lock**
    - It is used for fixing the KH carriage when you put away the machine.
  - **D-Slider**
    - D-Slider is used for dropping the stitches on the KH bed.
  - **End Stitch Supporter**
    - They are used for making the stitches at the edges securely.
  - **Weight (Large)**
  - **Claw Type Weight Hanger**
  - **Weight (Small)**
  - **KR Setting Plate**
    - They are used for fixing the ribbon to the knitter.
  - **Grip Handle**
    - They are used for tilting the knitter to fix the ribbon.
  - **Table Clamp**
  - **Spare Needle**
  - **Transfer Needle**
  - **Work Hook**
    - The hook is used for picking up dropped stitches.
  - **Spanner**
  - **Cast-on Comb**
    - Short (64 stitches)
    - Long (110 stitches)
  - **1/2 x 2/2 Needle Pusher**
  - **Knitting Bar**
Here are a few important points to remember before you start knitting.

**Tension dial**
The tension in knitting denotes the size of the stitch. The tension dial on the KR carriage is graduated from "★" to "10", each space between numbers being subdivided into three parts. The asterisk "★" denotes the tightest tension, i.e., the smallest stitch and the "10" denotes the loosest or largest stitch. Use the asterisk "★" when you knit selvedge with thick yarn.
The tension at which a garment is knitted depends not only on personal taste, but also on the type of garment required and the thickness of the wool. The following tension chart is a guide for your reference.

<table>
<thead>
<tr>
<th>TYPE OF YARN</th>
<th>1 x 1 rib</th>
<th>2 x 2 rib</th>
<th>full needle rib</th>
<th>circular</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thick yarn</td>
<td>1 ~ 4</td>
<td>2 ~ 4</td>
<td>2 ~ 4</td>
<td>1 ~ 4</td>
</tr>
<tr>
<td>Very thick yarn</td>
<td>5 ~ 8</td>
<td>6 ~ 9</td>
<td></td>
<td>6 ~ 9</td>
</tr>
<tr>
<td>Super thick yarn</td>
<td>8 ~ 10</td>
<td>9 ~ 10</td>
<td></td>
<td>9 ~ 10</td>
</tr>
</tbody>
</table>

The yarn is classified by the following standard. However, you had better think of the strand or the quality of yarn. So knit on trial and find your favorite stitch size.

- Thick: 115 ~ 125m/50g
- Very thick: 80 ~ 100m/50g
- Super thick: 50 ~ 65m/50g

**Slide lever**
You can also change the size of the stitches by the Slide Lever.

I - For a softer and looser stitch
II - For a firmer stitch
- **Grip handle**
  Grip handle is used for making the "Racked pattern" and "Herringbone pattern". The racking position is indicated on the racking indicator. By turning the Grip handle, ribber bed is moved right or left. Normally, set the indicator to P3 which shows centre position. There are two positions for setting, P and H.

  **Position P**
  Plain needles and purl needles directly opposite to each other.

<table>
<thead>
<tr>
<th>P</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>H</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

  Changing one pitch from P0 to P1.

<table>
<thead>
<tr>
<th>P</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>H</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

- **Position H**
  Purl needles are halfway between two plain needles.

<table>
<thead>
<tr>
<th>P</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>H</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

  Changing half pitch from P0 to H1.

<table>
<thead>
<tr>
<th>P</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>H</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

Do not turn the handle when both needles come out of gate pegs.
**Needle position**
There are 4 positions on the needle bed of the ribber.

1. Holding or partial knitting position.
2. When the needles are brought in this position from the position E, they will automatically back to the position B by operation of the carriage.
3. Knitting or working position.
4. Resting or non-knitting position.

**Connecting pin**
- Connecting pin is used to connect the KH carriage (connecting arm) to the KR carriage.

- Push down the Connecting Pin and slide the KH carriage (or KR carriage) to disconnect from KR carriage (KH carriage).
### Standard Weight Chart

<table>
<thead>
<tr>
<th>No. of Stitches</th>
<th>Large Weight</th>
<th>Small Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>~ 20</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>20~ 40</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>40~ 60</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>60~ 80</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>80~110</td>
<td>5</td>
<td>2</td>
</tr>
</tbody>
</table>

- **Weight**
  Number of weights to be used depends on the width of knitting and pattern. Hang the weights on the cast-on comb so that they hold the knitting work in balance.

- **Claw-type weight hanger**
  The claw type weight hangers are used for hanging the small weights to give tension to the edge of the knitting work. Rehang them onto the upper side of the knitting swatches.

- **Wire-loop type weight hanger**
  The wire-loop type weight hangers are used for hanging small weights to give tension to the edges of the knitting work and also used as a small cast-on comb for casting-on work of less than 6 stitches.
• Bracket lever
The bracket lever is used to let down the ribber.

• This is working position.

• With both hands, push down the levers of the bracket, the ribber will come down one step. This position is used for picking up dropped stitches.

• Push down the levers again and the ribber will come down one more step. At this position the ribber is at rest and single bed knitting work can be done without removing the ribber.

• To return to working position, lift up the ribber with both hands as high as it will go until it stays in position without holding.
- **End stitch supporter**
  They are used when the end stitches don’t slip out of the hooks of the needles easily.

  1. Put them on the needle position indicator from the inside of the gate pegs.

  2. Slide them to be close by the end needle.
  - When increasing (decreasing) the stitches, move the supporters according to the position of the end stitches.
  - Remove them by the contrary way.

- **Knitting bar**
  Knitting bar can help the stitches to slip out of the hooks of needles securely.
  Insert the bar from the end of the KH needle bed as shown in the figure.

  ![Diagram](image.png)

  - Gate peg
  - Knitting bar
  - Keeping this side up
• D-Slider
D-Slider is used for drop stitch pattern.
Operate D-Slider only from left to right.

① Place D-Slider outside of the working needle on your left side.

② Slide it from left to right pressing it down gently.
(Stitches on the KH bed drop off.)

* After operating the D-Slider, all the needles at B and D position will be placed at the original position.
When knitting Drop stitch pattern you cannot use E position.
How to knit 1 × 1 rib

1 × 1 rib is most widely used for waist bands in sweaters, cuffs, collars, pockets and for many other decorative purposes. The rib is produced by having knit stitch over knit stitch and purl stitch over purl stitch in vertical lines, and is soft and elastic. In the following example, thick yarn is used for the practice.

CASTING-ON FOR 1 × 1 RIB

1 Needle arrangement

① Set the Racking Indicator to P3.

② By using 1/1 needle pusher, arrange the plain needles and purl needles in B position of each bed. Note: Both end needles must be plain needles.
2 Setting of carriage

① Set the carriages as shown in the figure.

② By operating the connected carriage a few times over all arranged needles, the needles on KH and KR needle beds will be set in the line on B position. Place the connected carriage at right end of the needle beds.
3 First row knitting

① Thread the yarn into the Yarn tension unit, and hold the end of yarn as shown in the Fig.

② Pass the yarn between both gate pegs, and catch the end of yarn with left hand.

③ Hold the yarn with right hand (continue to hold the end of yarn with left hand), pass to the yarn feeder.

Pass the yarn into the yarn feeder securely.
4 Continue to hold the end of yarn with left hand, and move the connected carriage from right to left. (The yarn will hang on plain and purl needles.)

4 Hang on the cast-on comb
   ① Pull out the wire from the cast-on comb. (Choose long or short one depending on the knitting width.)

   ② Hold the cast-on comb with the face having the protrusions facing you and the comb on top. Put the cast-on comb between the knitter and the ribber from underneath and insert the comb between the plain and purl needles in such a way that the top of the comb does not disturb or drop the yarn hanging the needles.

   Pass the wire through the top of the combs with your right hand, while holding the comb with your left hand.
CORRECT

WRONG

• CORRECT

Push the wire as far as it goes.

Combi

Wire

• WRONG

WRONG

③ Hook the loose end of the yarn around the yarn clip to keep it out of the way and to tense the first stitch.

5 Hang on the weights

Hang the weights as per Standard weights chart on page 14 on the cast-on comb to keep balance.
6 Perfect selvedge
① Set the carriages as shown in the Fig.

② Move the connected carriage from left to right. (Only the plain needles knit.)

③ Move the connected carriage from right to left. (The purl needles knit.)

④ Move the connected carriage from left to right. (The plain needles knit.)
The perfect selvedge has been completed.

1 × 1 RIB KNITTING
7 ① After knitting the selvedge, set the carriages as shown in the Fig.
Then continue the knitting.

Note: Don't take the carriage back until you hear the "click", or the carriage passes the last working needle.

You are now able to do a finished end cast-on.

This method is very important, therefore please practice this cast-on two or three times.

If the carriage should jam while knitting, please refer to page 101 to release it.

When removing the swatch from the machine, take out the yarn from the yarn feeder and cut the yarn. And then operate the connected carriage.

---

**NOTE**

- When you knit selvedge, both end needles must be plain needles. If you need to arrange both end needles to be purl ones, transfer end plain needles to purl ones after knitting selvedge with both end needles being plain ones.
- If the knitting does not go down smoothly, pull it down.
- The face which has cams and brushes should be kept upward.
How to knit 2 × 2 rib

2 × 2 rib is 2 knit and 2 purl rib. In one row, 2 knit stitches alternate with 2 purl stitches and vertically form knit stitch over knit stitch and purl stitch over purl stitch. In the following example, very thick yarn is used.

CASTING-ON FOR 2 × 2 RIB

1 needle arrangement
   ① Set the Racking Indicator to P3.

② By using 2/2 needle pusher, arrange the plain needles and purl needles in position B of each bed.
   Note: Both end needles must be plain needles.

③ Set the Racking indicator on H2.
④ Raise a purl needle in the left side to position B.

2 Setting of carriage
① Set the carriages as shown in the Fig.

② Move the connected carriage a few times over all arranged needles to set them in a line.
Then, place the carriage at right end of the bed.

3 First row knitting
Thread the yarn into the yarn feeder.
Move the connected carriage from right to left. (The yarn will hang on plain and purl needles.)
4 **Hang on the cast-on comb**
This is in the same way as 1 × 1 rib.
① Pull out the wire from the cast-on comb.
  (Choose long or short one depending on the knitting width.)
② Hold the cast-on comb with the face having the protrusions facing you and the comb on top.
  Put the cast-on comb between the knitter and the ribber from underneath and insert the comb between the yarn hanging on the needles. And pass the wire. Hook the loose end of the yarn around the yarn clip.

5 **Hang on the weights**
Hang the weights as per Standard weights chart on page 14 on the cast-on comb to keep balance.
6 Perfect selvedge
   ① Set the carriages as shown in the Fig.

   ② Move the connected carriage from left to right.
      (Only the plain needles knit.)
   ③ Move the connected carriage from right to left.
      (The purl needles knit.)
   ④ Move the connected carriage from left to right.
      (The plain needles knit.)

7 Needle arrangement to change from selvedge of the 2 × 2 rib knitting.
   ① Set the Racking indicator to P3.

   ② By using the Double eyelet transfer needle, transfer the stitch of left end purl
      needle to the left end plain needle which has one stitch, and return the empty purl
      needle to A position of KR bed.
      * How to transfer ... see on page 93.
2 × 2 RIB KNITTING

8 ① After knitting the selvedge, set the carriages as shown in the Fig.

② Then, continue knitting.
How to knit 2 x 1 rib

- In the following example, very thick yarn is used.

CASTING-ON FOR 2 x 1 RIB

1 Needle arrangement

① Set the Racking indicator to H3 and arrange the needles as shown in the Fig.

② Set the Racking indicator to H2 and raise the left end purl needle to B position of KR bed.
2 **Setting of carriage**

Set the carriages as shown in the Fig.

3 From the step "First row knitting" to "Selvedge" are the same as original method.

4 **Needle arrangement to change from selvedge of the 2 × 1 rib knitting.**

After selvedge, set the Racking indicator to H3.

① Transfer the left end purl stitch to the KH needle, and return the empty needle (KR) to A position of KR bed.
5 2 × 1 RIB KNITTING

(1) After knitting the selvedge, set the carriages as shown in the Fig.

(2) Then, continue knitting.
Knitting method of full needle rib is the same as for 1 × 1 rib. Difference is the needle arrangement only. In 1 × 1 rib, every other needle is used but in full needle rib, all needles are used. Thick yarn is suitable for this knitting. Refer to page 16 and set the Knitting bar.

CASTING-ON FOR FULL NEEDLE RIB

1 Needle arrangement
   ① Set the Racking Indicator to H3.
   Arrange the plain and purl needles in B position of each bed.
   Note: Both end needles must be plain needles.

2 Setting of carriage
   ① Set the carriages as shown in the figure.
② Move the connected carriage a few times over all arranged needles to set them in a line. Then place the carriage at right end of the bed.

3 First row knitting
Thread the yarn into the Yarn feeder. Move the connected carriage from right to left. (The yarn will hang on plain and purl needles.)

4 Hang on the cast-on comb
This is the same as 1 x 1 rib.
① Pull out the wire from the cast-on comb. (Choose long or short one depending on the knitting width.)

② Hold the cast-on comb with the face having the protrusions facing you and the comb on top. Put the cast-on comb between the knitter and the ribber from underneath and insert the comb between the yarn hanging on the needles. And pass the wire. Hook the loose end of the yarn around the Yarn clip.
5 **Hang on the weight**
Hang the weights as per Standard weights chart on page 14 on the cast-on comb to keep balance.

6 **Perfect selvedge**
1. Set the carriages as shown in the Fig.
2. Move the connected carriage from left to right. (Only the plain needles knit.)
3. Move the connected carriage from right to left. (The purl needles knit.)
4. Move the connected carriage from left to right. (The plain needles knit.)
FULL NEEDLE RIB KNITTING

7 ① After knitting the selvedge, set the carriages as shown in the Fig.

② Then, continue knitting.
5 × 5 rib is called 5 knit 5 purl rib. In one row, there are 5 knit stitches alternating with 5 purl stitches, and vertically, form knit stitch over knit stitch and purl stitch over purl stitch. The following example is knitted with thick yarn.

You can knit 3 × 3 rib or 4 × 4 rib or so in the same way.

1 CASTING-ON FOR 5 × 5 RIB
This is the same as for full needle rib, so follow the step 1-6 of full needle rib.

5 × 5 RIB KNITTING
2 ① After knitting the selvedge, by using the Double eyelet transfer needle, transfer the stitches to corresponded needles, and return the empty needles to A position of each bed.
2. Set the carriages as shown in the Fig.

3. Then, continue knitting.

* After knitting around 20 rows, use claw-type weight hangers. Rehang them onto the upper side of the knitting swatch.
Circular knitting is made up of only plain knit stitches, and is a jointless tube. Size of tube depends on the number of needles. Before you start to knit the garment, make the test piece to check the tension gauge. If there is slacken on the side, please adjust by the tension dial on the KR carriage. The example is knitted with Thick yarn.

CASTING-ON FOR CIRCULAR KNITTING

1 Needle arrangement
Set the Racking indicator to H3. Arrange the plain and purl needles in B position of each bed.
Note: Both end needles must be plain needles.

2 Setting of carriages
① Set the carriages as shown in the Fig.
2. Move the connected carriage a few times over all arranged needles to set them in a line. Then, place the carriage at right end of the bed.

3. **First row knitting**
   1. Thread the Cast-on thread provided in the accessories into the yarn feeder.

   2. Move the connected carriage from right to left. (The cast-on thread will hang on plain and purl needles.)

4. **Hang on the cast-on comb**
   This is the same as 1 x 1 rib.
   1. Pull out the wire from the cast-on comb.
      (Choose long or short one depending on the knitting width.)
Hold the cast-on comb with the face having the protrusions facing you and the comb on top. Put the cast-on comb between the knitter and the ribber from underneath and insert the comb between the yarn hanging on the needles. And pass the wire. Hook the loose end of the yarn around the Yarn clip.

5. **Hang on the weights**
   Hang more weights than usual.

6. **Change the yarn**
   1. Remove the cast-on thread from the yarn feeder.

   2. Rethread the knitting yarn into the Yarn feeder.
CIRCULAR KNITTING

7 Set the carriages as shown in the Fig.

2 Then, continue knitting.
How to knit "U" style knitting

This garment is made of all plain knitting stitches. The knitter side and the ribber side are connected at only one side. This knitting is used for work of more than 114 stitches width. In the following, the garment is knitted with closed right side and open left side.

CASTING-ON FOR "U" STYLE KNITTING

1 This is the same as for Circular knitting. So follow the step 1-6 of Circular knitting. The connected carriage is on the left side of the bed after casting-on.

"U" STYLE KNITTING

2 ① Set the carriages as shown in the figure and knit 2 rows.
③ Repeat the step ① – ②, then you can make "U" style knitting.

② Then, reset the carriages as shown in the figure and knit 2 rows.
Half fisherman’s rib is a variety of $1 \times 1$ rib and knitter side is plain stitch but ribber side is tuck stitch.

The example is knitted with thick yarn.

**CASTING-ON FOR HALF FISHERMAN’S RIB**

1. This is the same as for $1 \times 1$ rib. So follow the step 1-6 of $1 \times 1$ rib.

**HALF FISHERMAN’S RIB KNITTING**

2. ① Hang the Wire-loop type weight hanger and small weight on the edge of the knitting work to avoid stitch dropping. (How to use – See on page 14.)

② Set the carriages as shown in the Fig. and continue knitting.
How to knit Full fisherman’s rib

Full fisherman’s rib is made of tucking stitches on both sides of garment. The example is knitted with thick yarn.

* You need to use the Knitting bar. (How to use .... p.16)

CASTING-ON FOR FULL FISHERMAN’S RIB

1 This is the same as for 1 x 1 rib. So follow the step 1-6 of 1 x 1 rib.

FULL FISHERMAN’S RIB KNITTING

2 ① Hang the Wire-loop type weight hanger and small weight on the edge of the knitting work to avoid stitch dropping. How to use – See on page 14.

② Set the carriages as shown in the figure and continue knitting.
How to knit Racked half fisherman’s rib

This garment is added racking operation to Half Fisherman’s rib.
This garment is not so elastic.
The example is knitted with thick yarn.

* Your need to use the Knitting bar.

CASTING-ON FOR RACKED HALF FISHERMAN’S RIB

1. This is the same as for 1 x 1 rib, so follow the step 1 – 6 of 1 x 1 rib.

2. After knitting the selvedge swing the ribber half pitch to right. (Racking indicator: H3)

RACKED PATTERN KNITTING

2. Set the carriages as shown in the Fig.
2. Move the connected carriage from right to left. (The plain needles knit and purl needles have two loops each on their hooks.)

3. Set the Racking indicator to H2. And knit two rows.

4. Set the Racking indicator to H3. And knit two rows.

5. Repeat the step 3-4.

* After knitting around 20 rows, use claw-type weight hangers. Rehang them onto the upper side.
You can knit this pattern by racking the ribber pitch by pitch. The example is knitted with thick yarn.

**CASTING-ON FOR RACKED PATTERN (I)**

**1 Needle arrangement**
Set the Racking indicator to H0. Arrange the plain and purl needles in B position of each bed. Note: Both end needles must be plain needles.

**2**
The other steps are the same as for full needle rib, so follow the step 2–6 of full needle rib.

**RACKED PATTERN (II) KNITTING**

**3**
After knitting the selvedge, using the Double eyelet transfer needle, transfer the part (A) stitches to opposite plain needles, and return the empty needles to A position of KR bed.
How to use ... see on page 93.
4 Set the carriages as shown in the Fig. Move the connected carriage from right to left. (The plain and purl needles knit.)

5 Set the Racking indicator to H1. Move the connected carriage from left to right. See the “Note” on p.52.

6 Set the Racking indicator to H2. Move the connected carriage from right to left.

7 Continue the same manner until the Racking indicator indicates H6, and then move the connected carriage from right to left.
8. Set the Racking indicator to H5. Move the connected carriage from left to right.

9. Continue the same manner until the Racking indicator indicates H0, and then move the connected carriage from right to left.

10. Repeat the step 5 - 9.

Pay attention to the purl needle at the edge of the knitting.

See the "Note" on next page.

Note: Don’t turn the racking grip handle when the needles are raised over the gate pegs.

* After knitting around 20 rows, use claw-type weight hangers. Rehang them onto the upper side of the knitting swatch.

<table>
<thead>
<tr>
<th>Racking Indicator</th>
<th>Direction of Carriage Movement</th>
</tr>
</thead>
<tbody>
<tr>
<td>H0</td>
<td>←</td>
</tr>
<tr>
<td>H1</td>
<td>→</td>
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<tr>
<td>H2</td>
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<tr>
<td>H2</td>
<td>←</td>
</tr>
<tr>
<td>H1</td>
<td>→</td>
</tr>
</tbody>
</table>
- Pay attention to the purl needle at the edge of the knitting in order to make the correct pattern.

☆ When the purl needle at B position juts out from the working needles of KH, transfer the stitch of it to the end plain needle, and return the empty purl needle to A position of KR bed.

☆ At the other side, arrange the purl needle according to the pattern stitches which you knit.
How to knit Racked pattern (II)

This pattern can be knitted by racking the ribber two pitches in every other row. The example is knitted with thick yarn.

CASTING-ON FOR RACKED PATTERN (II)

1 Needle arrangement
Set the Racking indicator to H3. Arrange the plain and pull needles in B position of each bed.
Note: Both end needles must be plain needles.

2 The other steps are the same as for full needle rib, so follow the step 2 – 6 of full needle rib.
RACKED PATTERN (II) KNITTING

3. After knitting the selvedge, using the Double eyelet transfer needle, transfer the part (AI) stitches to opposite plain needles, and return the empty needles to A position of KR bed.

4. Set the carriages as shown in the figure. And knit two rows.

5. Set the Racking indicator to H5 and knit two rows.
6 Set the Racking indicator to H3 and knit two rows.

7 Repeat the step 5 – 6.

* After knitting around 20 rows, use claw-type weight hangers. Rehang them onto the upper side of the knitting swatch.
The example is knitted with thick yarn.

- You need to use the Knitting bar.

CASTING-ON FOR HERRINGBONE PATTERN

1 Needle arrangement
   Set the Racking indicator to H3.
   Arrange the plain and purl needles in B position of each bed as shown in the Fig.

2 Setting of carriage
   Set the carriages as shown in the Fig.
3 First row knitting
Thread the yarn into the yarn feeder. Move the connected carriage from right to left.

4 Hang the cast-on comb in the same way as for 1 x 1 rib. And hang the weights as per Standard weights Chart on page 14 on the cast-on comb to keep balance.

5 Perfect selvedge
① Set the carriages as shown in the Fig.
② Move the connected carriage from left to right.
③ Move the connected carriage from right to left.
④ Move the connected carriage from left to right.
HERRINGBONE PATTERN KNITTING

6 Transfer the end plain needle at right side to the end purl needle.

7 Set the carriages as shown in the Fig.

8 Move the connected carriage from right to left. (Racking indicator: H3)

9 Set the Racking indicator to H4, and move the connected carriage from left to right.
10 Set the Racking indicator to H3, and move the connected carriage from right to left.

11 Repeat the step 9–10 until you knit twelve rows.

12 Move the connected carriage from right to left. (Racking indicator: H4)

13 Set the Racking indicator to H3, and move the connected carriage from left to right.
14 Set the Racking indicator to H4, and move the connected carriage from right to left.

15 Repeat the step 13 - 14 until you knit twelve rows.

16 Repeat the step 8 - 15. The pattern knitted from the step 8 - 15 is one cycle.

* After knitting around 20 rows, use calw-type weight hangers. Rehang them onto the upper side of the knitting swatch.
Where pin tucks are desired, slip the needles on KH and knit desired numbers of rows for a pin tuck on KR alone (usually 3 – 4 rows). Then continue knitting on both beds. By repeating this you will have Pin tuck pattern. Use thick yarn for this pattern.

* You need to use the Knitting bar.

CASTING ON FOR PIN TUCK PATTERN

1 This is the same as for full needle rib. Follow the step 1–6 of full needle rib.

PIN TUCK PATTERN KNITTING

2 Set the carriages as shown in the Fig. Then knit 10 rows.

3 Set the carriages as shown in the Fig. Then knit 4 rows.
(Only the purl needles knit.)
4. Push the Cam button release lever, then knit 10 rows.
   (Both plain and purl needles knit.)

5. Repeat the step 3 - 4.
Use thick yarn for this pattern.

* You need to use the Knitting bar.

**CASTING-ON FOR RIB SKIP PATTERN**

1. This is the same as for full needle rib. Follow the step 1–6 of full needle rib.

**RIB SKIP PATTERN KNITTING**

2. Set the carriages as shown in the Fig. Then knit two rows.

3. Insert the card and lock on row 1. Rotate the card to Set line. Then set the Card lock lever to the "●" mark.
4. Set the Change knob to "KC" position.

5. Move the connected carriage to the left.

6. Push both Part buttons at the same time.

7. Set the Card lock lever to the "\( \uparrow \)" mark. Then begin knitting.
Rib tuck pattern is a variation of 1 × 1 rib or full needle rib. In the following description, Rib tuck pattern of full needle rib is made. The example is knitted with thick yarn. You need to use the Knitting bar.

Insert the Knitting bar from the end of the KH needle bed as shown in the Fig.

CASTING-ON FOR RIB TUCK PATTERN

1 This is the same as for full needle rib. Follow the step 1 – 6 of full needle rib.

RIB TUCK PATTERN KNITTING

2 After setting the carriages as shown in the Fig, move the connected carriage from right to left.
3 Insert the card and lock on row 1. Rotate the card to Set line. Then set the Card lock lever to the "O" mark.

4 Set the Change knob to "KC" position.

5 Move the connected carriage to the right.

6 Push both Tuck buttons at the same time.
7 Set the Card lock lever to the "▼" mark.

8 Then begin knitting.

Note: After knitting around 20 rows, use claw-type weight hangers. Rehang them onto the upper side of the knitting swatch.
How to knit Drop stitch pattern

You can knit this pattern using D-Slider. The example is knitted with thick yarn.

- Punch the Blank Card and write asterisks as shown in the Fig.
- Cancel the working of end needle selection mechanism referring to p.42 of the instruction manual for the knitter.

CASTING-ON FOR DROP STITCH PATTERN

1 Needle arrangement
Set the Racking indicator to H3. Arrange the plain and purl needles in B position of each bed. Note: Both end needles must be purl needles.

2 Setting of carriage
Set the carriages as shown in the Fig. Move the connected carriage a few times over all arranged needles to set them in a line. Then, place the carriage at right end of the bed.

3 First row knitting
Thread the yarn into the yarn feeder. Move the connected carriage from right to left. (The yarn will hang on plain and purl needles.)
4 Hang on the cast-on comb
Hang on the cast-on comb as shown in the Fig.

Note: When knitting Drop stitch pattern, hang the cast-on comb correctly as shown in the Fig. a. If the cast-on comb is not hanged correctly (Fig. b), the cast-on comb will be dropped off when using the D-Slider.

5 D-Slider
① Make sure that the arranged needles are in B position of each bed.

② Place D-Slider outside of the working needle on your left side.
③ Then slide it from left to right pressing it down gently.
(Stitches on the KH bed drop off.)

④ Lift up D-Slider to remove it.
* Operate D-Slider only from left to right.

6 Hang on the weights
Hang more weights than usual.

DROP STITCH PATTERN KNITTING
7 Insert card and lock on row 1.
Rotate card to Set Line. Then set the Card Lock Lever to the "○" mark.
8 Set the carriages as shown in the Fig.

9 Move the connected carriage from left to right. (Needles of KR knit and needles of KH are only selected.)

10 Set the Card Lock Lever to the "▼" mark.

11 Move the connected carriage from right to left. (Needles of KH and KR knit.)
12 Knit several rows until the asterisk of the Punch Card comes to the set line.

13 When the asterisk of the Punch Card comes to the set line, operate D-Slider as you do before.

14 Repeat the step 12 – 13.
**NOTE**

- If you find some stitches are not dropped after operating D-Slider, operate it again.

- When you make own punch card for Drop stitch pattern ....
  1. Do not punch the row before the one in which you want to drop stitches.
  2. Write asterisk seven rows above the one in which you want to drop stitches.
Increasing the stitches

1 × 1 rib

- **Increasing one stitch on one side of knitting width**
  1. Place the carriages on the side which you want to increase.
  2. Raise the end needle to the working position B.
  3. The empty needle will pick up the yarn, as it knits the next row.

- **Increasing more than two stitches on one side of knitting width**
  1. Place the carriages opposite to the side you want to increase.
  2. Bring into action on the side opposite to the carriage as many needles as the number of stitches to be increased.
  3. Move the carriages.
  4. The yarn will hang on the increased needles on both beds.
  5. Hang the wire loop type weight hanger and small weight.
  6. Continue knitting.
**Increasing one stitch on one side of knitting width**

1. Take the loop of the first stitch on KH and put it onto the next empty needle.

2. Take the loop of the first stitch on KR and transfer it onto the next empty needle. (By operations 1 and 2, 1 stitch is increased.)

**Increasing more than two stitches on one side of knitting width**

1. Place the carriages opposite to the side you want to increase.

2. Bring into action on the side opposite to the carriage as many needles as the number of stitches to be increased.

3. Move the carriages.

4. The yarn will hang on the increased needles on both beds.

5. Hang the Wire loop type weight hanger and small weight.

6. Continue knitting.
Decreasing the Stitches

**1 × 1 rib**

- **Decreasing one stitch on one side**
  By using the transfer tool, transfer the end stitch to the second needle, and take the empty needle out of action.

- **Decreasing more than two stitches**
  If you decrease more than two stitches, decrease them at the side where the carriage is placed to avoid the stitches become too tight.
  In this method decrease them in the KH side.
  ① Transfer the stitches of KR side that you want to decrease to the KH needle.
     Push back the empty needles to A position.

  ② Transfer the second stitch onto the next outer stitch and again transfer the end two stitches onto the next inner needle.
     Then decrease it by cast off stitch.
     Repeat this manner until you decrease as many stitches as you want to.
**Decreasing one stitch on one side**

1. Transfer the first stitch on KH onto the adjacent needle. Push back the empty needle to A position.
2. Transfer the first stitch on KR onto the adjacent needle. Push back the empty needle to A position.

(By operations ① and ②, 1 stitch is decreased.)

**Decreasing more than two stitches on one side**

1. Transfer the number of needles to be decreased onto the KH. Push back the empty needles to A position.

2. Transfer the second stitch onto the next outer stitch and again transfer the end four stitches onto the next inner needle. Then decrease it by cast off stitch. Repeat this manner until you decrease as many stitches as you want to.
PARTIAL KNITTING OF 1 x 1 RIB

Partial knitting is used for shaping of garment, making darts, shaping of a heel, vertical and horizontal buttonholes, neck opening, pockets etc. There are two cases, one is decreasing of knitting part, another one is increasing of knitting part.

The example is partial knitting of 1 x 1 rib, however, 2 x 2 rib, full needle rib, 5 x 5 rib, Half fisherman's rib, Full fisherman's rib and Rib tuck pattern are the same manner as 1 x 1 rib.

Decreasing knitting part

It is the example when you decrease in left side. Bring the needles to E position when the carriage is placed the other side. (in this case right side)

You can decrease the stitches only at the side opposite to the carriage.

1 Set the both carriages as shown in the figure.
2 Bring the nonknitting needles of KH and KR beds to E position.

3 Move the connected carriage from right to left. (The needles on B position knit, and the yarn is across on the needles in E position.)

4 To avoid a hole in the knitting, put yarn behind the innermost needle on KR or KH which is in E position.

5 Move the connected carriage from left to right.

6 Repeat step 2 – 5 according to the shape of the garment. After partial knitting, if you want to knit all needles, simply set Holding Cam Levers of both carriages to normal position (=) and move the carriage.
**Increasing knitting part**

It is the example when you increase in left side. You can increase the stitches only at the side opposite to the carriage.

1. Set the both carriages as shown in the Fig.

2. Bring the nonknitting needles of KH and KR beds to E position.

3. Move the connected carriage from right to left. (The needles on B and D position knit, and the yarn is across on the needles in E position.)
4. To avoid a hole in the knitting, put yarn behind the innermost needle on KR or KH which is in E position, and then move the connected carriage from left to right.

5. For 1 × 1 rib, 2 × 2 rib and full needle rib, bring back the required needles you want to knit to D position of each bed from E position.

   - For Half fisherman’s rib, Full fisherman’s rib, Pin tuck pattern and Rib tuck pattern, bring back the required needles you want to knit to D position, and using the transfer tool, place the stitch behind the latch into the hook. Then return required needles to B position according to the pattern stitches.

6. Repeat the step 3 – 5 according to the shape of garment.
PARTIAL KNITTING OF
RACKED PATTERN

In the racked pattern, it is impossible to bring both needles to E position so, please knit partial knitting of racked pattern according to the following method. The example is Racked half fisherman's rib.

**Decreasing knitting part**

- It is the example when you decrease in left side.
  You can decrease the stitches only at the side opposite to the carriage.

1. Set the carriages as shown in the Fig.

2. Bring the nonknitting needles of KR bed to E position.
   Bring the knitting needles of KH bed to E position.

3. Move the connected carriage from right to left. (The plain needles on E position and purl needles on B position knit, and the yarn is across on the purl needles on E position.)
4 To avoid a hole in the knitting, put yarn behind the innermost needle on KR or KH which is in E position.

5 Set the Racking indicator on next number. Bring the knitting needles of KH bed to E position.

6 Move the connected carriage from left to right.

7 Repeat step 2 – 6 according to the shape of garment.
Increasing knitting part

- It is the example when you increase in left side. You can increase the stitches only at the side opposite to the carriage.

1. Set the carriages as shown in the Fig.

2. Bring the knitting needles of KH bed to E position, and the nonknitting needles of KR bed to E position.

3. Move the connected carriage from right to left. (The plain needles on E position and purl needles on B position knit, and the yarn is across on the purl needles on E position.)
4 To avoid a hole in the knitting, put yarn behind the innermost needle on KR or KH which is in E position.

5 Set the racking indicator on next number. Bring the knitting needles of KH bed to E position.

6 Move the connected carriage from left to right.
7 Bring back the required purl needles you want to knit to D position, and using the transfer tool, place the stitch behind the latch into the hook. Then return these needles to B position.
Bring the knitting needles of KH bed to E position.

8 Move the connected carriage from right to left.

9 To avoid a hole in the knitting, put yarn behind the innermost needle on KR or KH which is in E position.
10 Set the Racking indicator on next number. Bring the knitting needles of KH bed to E position.

11 Move the connected carriage from left to right.

12 Bring back the required purl needles you want to knit to D position, and using the transfer tool, place the stitch behind the latch into the hook. Then return these needles to B position. Bring the knitting needles of KH bed to E position.

13 Repeat step 3 – 12 according to the shape of garment.
**DECREASING KNITTING PART**

1. Set the Holding Cam Lever (L & R) of KR to `< - >`.

2. **When the asterisk of the Punch Card is on the set line . . .**
   ① Operate D-Slider to drop the stitches on KH bed.
   ② Bring the nonknitting needles of KH bed to A position.
      Bring the nonknitting needles of KR bed to E position.
      (End needles must be purl needle.)

3. **When the asterisk of the Punch Card is not on the set line . . .**
   Drop all the stitches on the nonknitting needles by hand and return them to A position.
   Bring the nonknitting needles of KR bed to E position.
   (End needles must be purl needle.)
3 Move the connected carriage from right to left. (The needles on B position knit, and the yarn is across on the needles on E position.)

4 To avoid a hole in the knitting, put yarn behind the innermost needle on KR or KH which is in E position.

5 • When the asterisk of the Punch Card is on the set line . . .
   Operate D-slider and move the connected carriage from left to right.
• When the asterisk of the Punch Card is not on the set line . . .
   Move the connected carriage from left to right.

6 Repeat the step 2 - 5 according to the shape of garment.
   * After partial knitting, if you want to knit all needles, drop all the stitches on the KH bed, return them to A position and set Holding Cam Levers of KR to normal position (=), Then move the carriage.
• It is the example when you increase in left side.
You can increase the stitches only at the side opposite to the carriage.

1 Set the Holding Cam Lever (L & R) of KR to < - >.

2 • When the asterisk of the Punch Card is on the set line . . .
   1) Operate D-Slider to drop the stitches on KR bed.
   2) Bring the nonknitting needles of KH bed to A position.
• When the asterisk of the Punch Card is not on the set line . . .
   Drop all the stitches on the nonknitting needles by hand and return them to A position.
   2) Bring the nonknitting needles of KR bed to E position.
   (End needles must be purl needle.)

3 Move the connected carriage from right to left. (The needles on B position knit, and the yarn is across on the needles on E position.)

4 To avoid a hole in the knitting, put yarn behind the innermost needle on KR or KH which is in E position.
5. **When the asterisk of the Punch Card is on the set line...**
Operate D-Slider and move the connected carriage from left to right.

6. **When the asterisk of the Punch Card is not on the set line...**
Move the connected carriage from left to right.

6. Bring back the required plain needles you want to knit to B position from A position (arrange the needle according to the pattern stitches you knit.) and the required purl needles to D position from E position.

7. **When the asterisk of the Punch Card is on the set line...**
Operate D-Slider and move the connected carriage from right to left.

8. **When the asterisk of the Punch Card is not on the set line...**
Move the connected carriage from right to left.

1. Take a stitch on the ribber onto the transfer needle.

2. Carefully slide it down to the opposite end.

3. Slide it into the hook of the empty needle on the main bed.
1. Take a stitch on the main bed onto the transfer needle.

2. Carefully slide it down to the opposite end.

3. Slide it into the hook of the empty needle on the ribber.
How to Shape a Round Neck Line

The example is showing that the yarn end is on the right side. When starting to knit the neck line, if yarn end is on the left side, knit part (4) first by regarding the RIGHT as LEFT in following instructions.

In this method you use cast-on thread. (There is another method in which you use holding cam lever.)

1. Bring forward to E position all the needles for the parts (1) and (2) on the opposite side of the carriages. Hang the cast-on thread on the hooks of the needles in E position, and bring them back to A position one by one. At this time, make sure that the cast-on thread is between hook and latch of the needle to avoid dropping the stitches.

2. Knit part (3) according to your pattern. Decreasing at the neck edge will be done by using the Transfer Tool or partial knitting. Decrease in this manner until you have the required number of stitches left for the shoulder.
2. Knit in waste yarn and remove the knitting (3) from machine.

3. When part (3) is completed, transfer the stitches for part (1) and (2) from needles in A position to the hooks of the needles by pulling the cast-on thread and place them in B position.
Leaving the needle for part (4) in the B position, bind off the center neck line stitches for part (2).

4. Knit part (4) as you do part (3).
How to Finish Ribbed Edges

Circular waste knitting

1. Set the carriages for circular knitting and the tension dial 1 full number larger. Knit 8-10 rounds in waste yarn and remove from machine. (1 round trip of carriage equals 1 row.)

2. Fold the waste knitting to the outside and you can then easily pick up the stitches and finish them in rib by hand.
How to finish 1 x 1 rib with a tapestry needle

Thread the tapestry needle and insert the needle into the last stitch. Pull through to the right side.

Pull out the needle. Insert the tapestry needle into the same stitch and the first stitch on the back row.

Pull the tapestry needle through. On the front row, insert the needle into the first stitch from the front and into the second stitch from behind.

Pull the tapestry needle through. On the back row insert needle into the first stitch on the front row from behind and into the second stitch from the front.
Repeat above operations up to the left end, and for the last stitches, insert the tapestry needle following the direction of the arrow.

Remove the waste knitting and the edge is completed.

**How to finish 2 × 2 rib with a tapestry needle**
Thread a tapestry needle with the yarn and insert it into the last stitch.

Pull the needle through. Insert the tapestry needle into the same stitch on front row from the front, and to the second stitch from behind.
Pull the tapestry needle through. Insert the needle into the first stitch on the back row from behind, and into the 2nd stitch from the front.

Pull the needle through. Insert the tapestry needle into the 2nd stitch on the front row from the front and into the 3rd stitch from behind.

By repeating the above operation finish the stitches until the left end, and for the last stitch insert the tapestry needle following the direction of the arrows and pull through.

Remove the waste knitting and the edge is completed.
USEFUL HINTS

If the Carriage should Jam ...

1. Set the Change knob on KH carriage to "CR" position, and lift up the KH carriage.

2. Place the KH carriage to the side from where the row commenced, then return the Change knob to the position which has set before jamming.

3. (1) Remove the front foot from the front rail of KR needle bed. And place the KR carriage at the same side of KH carriage.  
(2) Connect both carriages.  
(3) Work the corrections if required.  
(4) Continue knitting.
How to unravel the rows

If you have knitted more than necessary rows do not remove the work from the knitter and ribber. Simply unravel one or several rows by doing the following.
Pull the yarn slightly, drawing it out of the stitches.
The stitches of the previous row will slip into the hook of the needles automatically as the yarn is raised in an upward movement towards the needle bed.

How to pick up dropped stitch

1. First, take off the weights and prevent dropping of multiple rows.
2. With both hands, push down the levers of the bracket, the ribber will come down one step.
3. In case one stitch is dropped.
   With the single transfer tool or work hook, pick up the stitch and the unknitted yarn and put them on the empty needle.

   In case multiple rows are dropped:
   ① Open the gate by pushing down both bracket levers, and catch the lowest loop of the dropped stitches with latch tool.
   ② With the latch tool, make the stitches, and hang the final stitch on the empty needle.
How to Use the Knitter as a Single Bed

a. Disconnect the carriage.
b. Push down both bracket levers of the ribber and the ribber will come down one step.
c. Take off the connecting arm from the KH carriage, and convert it to the sinker plate assembly of knitting machine.
d. The knitter can be used as a single bed.

How to Replace the Purl Needle

1. Push the plastic bar from either side.
2. Draw out by hand from the other side of the ribber until the needle you wish to change is free.

2. Bring forward the needle as far as it will go. Push down the hook of the needles until the shank of the needle bed. Grasp the shank and draw it out backwards.
3 Replace new needle with latch opened.

4 Push in the bar, making sure that the flat face is down.
How to make a tension swatch

1. Put 50 stitches to working position. After the casting on has been worked, transfer the stitches according to the pattern you have chosen.

2. Set the stitch dial and the cam lever to the position suitable for the yarn and the stitch pattern. Knit at least 30 rows in pattern using main colour.


4. On KH push up 11th needle on each side, left and right, to E position. Lay contrast, yarn in the hooks and push them back to B position. Pull the ends of the contrasting colour yarn down between the KH and KR beds using a hook tool.

5. Knit 15 rows more, making a total of 30 rows. Then knit 2 rows in contrasting colour.

6. Knit at least 30 rows in main colour. Remove weights and release the stitches from the machine.

* When you knit with your KR, the needle arrangements on KH and KR will be different depending upon the kind of stitch pattern. When you count the number of stitches, count them on the KH only, including the empty needles, no matter how many needles on KR are in working position. If there is no stitch on the 11th needle on the KH, put the marker on the 11th needle on the KR.
- Each time you finish work, service your machine as follows:
  a. Clean the machine of all wool lint with hand brush.
  b. Polish each part with soft oil cloth.
  c. Oiling the following parts.

  **Needle butts**
  **Rails of the needle bed**

  d. Wipe off stained oil.
  e. Keep your machine in a dry place.

- When you use the machine again after you leave it for a long time, polish it well with soft oil cloth.
  You had better knit full needle knitting 20 ~ 30 rows or so with old yarn to clean up soiled oil before you start knitting.

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**Back side of the Carriage**

After clean up with cloth oil the dotted line parts and the side of the Cam ④ and ⑤.
You can knit these patterns using the Blank Cards. Punch the Blank Cards as shown in the Fig.

* When you knit Rib skip pattern ⑬, refer to P.63 except Step 7. In Step 7 set the Card lock lever to "▼".
**Cable pattern A**

1. Casting-on is the same as for full needle rib (Step 1-6). After knitting the selvedge, transfer the stitches to corresponded needles. Return the empty needles to A position.

2. Every 8th rows cross the stitches according to the Diagram.

**Cable pattern B**

1. Casting-on is the same as for full needle rib (Step 1-6). After knitting the selvedge, transfer the stitches to corresponded needles. Return the empty needles to A position.

2. After knitting six rows, cross the stitches (B & C).

3. After knitting six rows, cross the stitches (A & B. C & D).

4. Repeat the step 2 – 3.
Rib tuck pattern ©

Use the Card (No. 3p).

Casting-on is the same as for full needle rib (Step 1-6). After knitting the selvedge, transfer the stitches to corresponded needles. Return the empty needles to A position.

Continue knitting after setting the carriages as shown in the Fig.

Rib tuck pattern ©

Use the Card (No. 2p). Cancel the working of end needle selection mechanism referring to p. 42 of the instruction manual for the knitter.

① Arrange the needles as shown in the Fig. The other step of casting-on is the same as for full needle rib.

② After knitting the selvedge, transfer the stitches to corresponded needles. Return the empty needles to A position.

③ Continue knitting after setting the carriages as shown in the Fig.
1. Casting-on is the same as for 1 x 1 rib (Step 1-6). After knitting selvedge, transfer the stitches to corresponded needles as shown in the Fig. Return the empty needles to A position.

2. Knit six rows.

3. Transfer the stitches (A and B) to the needles (C).

4. Knit six rows.

5. Repeat 3 – 4.
Transferred stitch pattern

1. Casting-on is the same as for full needle rib (Step 1-6). After knitting the selvedge, transfer the stitches to corresponded needles. Return the empty needles to A position.

2. Knit six rows.

3. Transfer the stitches marked with ● to the needles (○) and return the empty needles to A position.

4. Place the needles (▲) to B position and knit six rows.

5. Transfer the stitches (▲) to the needles (△) and return the empty needles to A position.

6. Place the needles (●) to B position and knit six rows.

7. Repeat the step 3 – 6.