

# Punch cards

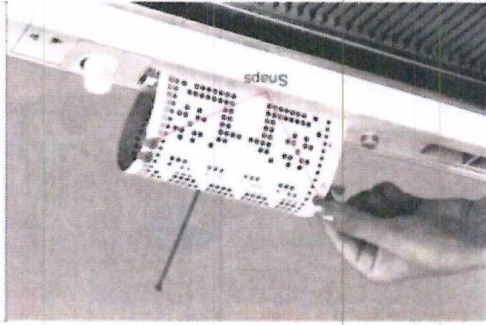
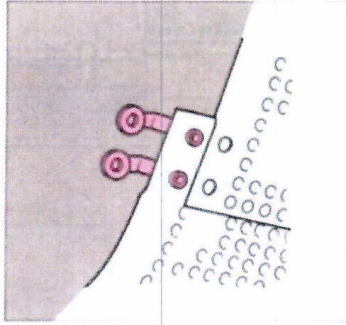
On some knitting machines you can work with punch cards. These cards contain a grid with holes that together form a pattern. When holding the card vertically, each horizontal row of the grid from represents one knitted row. A hole means "skip this needle", while a grid-block without a hole means "knit this needle". Using these cards, you can create jacquard designs on the domestic knitting machine.

Punch cards communicate in a language of 0's (no hole) and 1's (hole), which is binary code. Interestingly, this punch card system and binary language actually stems from another textile technique, weaving, which later also inspired the first digital computing machine and like this, much of the technology we now depend on.

- [How to use a punch card: step-by-step](#)
- [How to use a punch card: video](#)
- [Designing your own punch card](#)

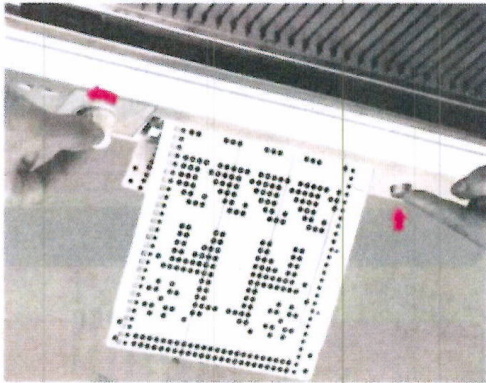
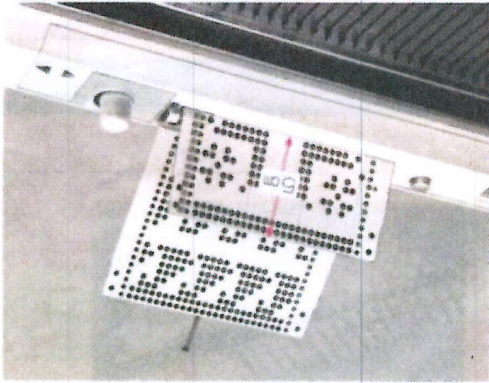
# How to use a punch card: step-by-step

- 1
- 

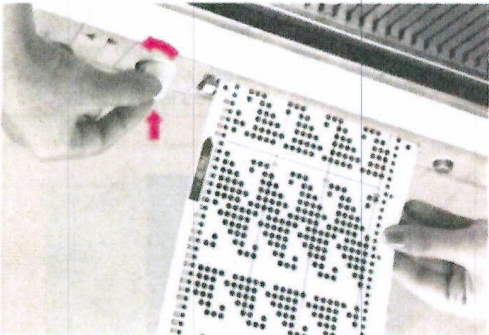


re:

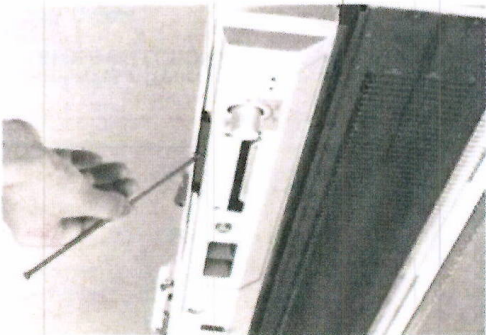
4) USING THE PLASTIC SNAPS, JOIN THE CARD (FRONT OVER BACK) TO ALLOW IT TO ROTATE



3) TURN THE FEEDING KNOB - PRESSING DOWN THE BUTTON - TO FEED THE PUNCHCARD



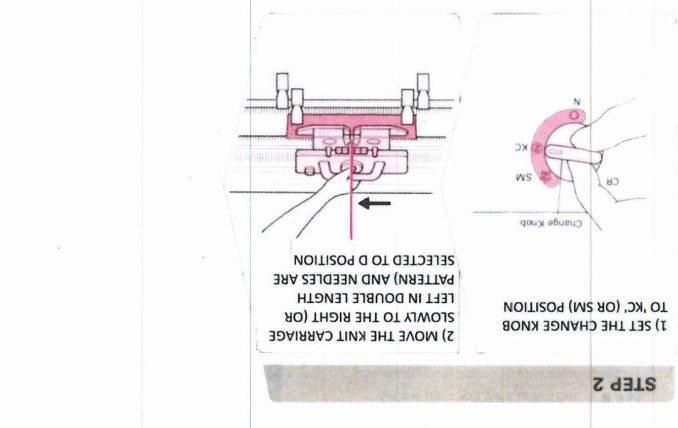
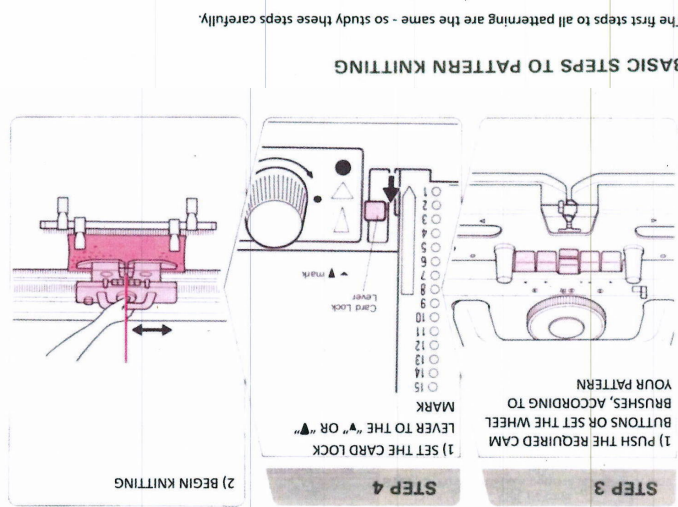
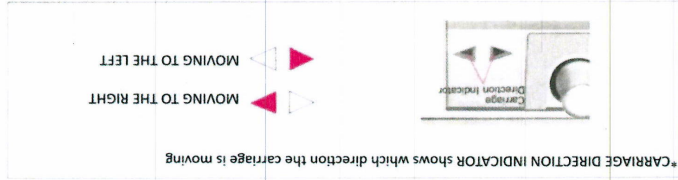
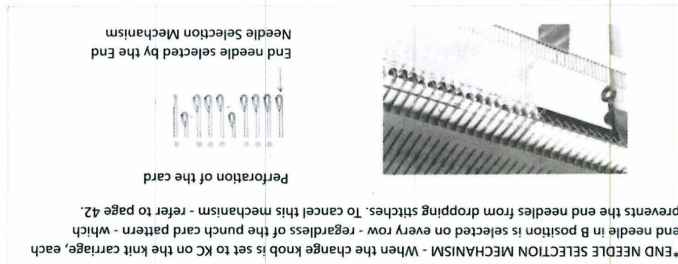
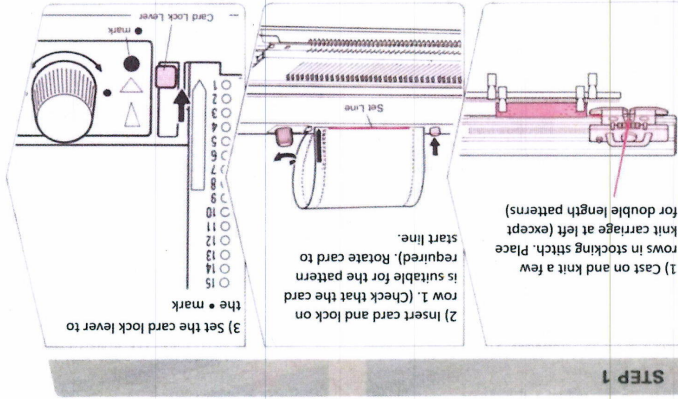
2) INSERT THE PUNCH CARD STRAIGHT INTO THE SLOT WITH THE NUMBER FACING YOU. MAKE SURE THE START LINE IS PARALLEL TO THE PANEL EDGE



1) INSERT THE PUNCH CARD HOLDER PIN IN THE HOLE BEHIND THE PUNCHCARD SLOT

## HOW TO SET THE PUNCH CARD

- Then, set up the machine:



\*END NEEDLE SELECTION MECHANISM - When the change knob is set to KC on the knit carriage, each end needle in B position is selected on every row - regardless of the punch card pattern - which prevents the end needles from dropping stitches. To cancel this mechanism - refer to page 42.

\*CARRIAGE DIRECTION INDICATOR shows which direction the carriage is moving

MOVING TO THE RIGHT

MOVING TO THE LEFT

The first steps to all patterning are the same - so study these steps carefully.

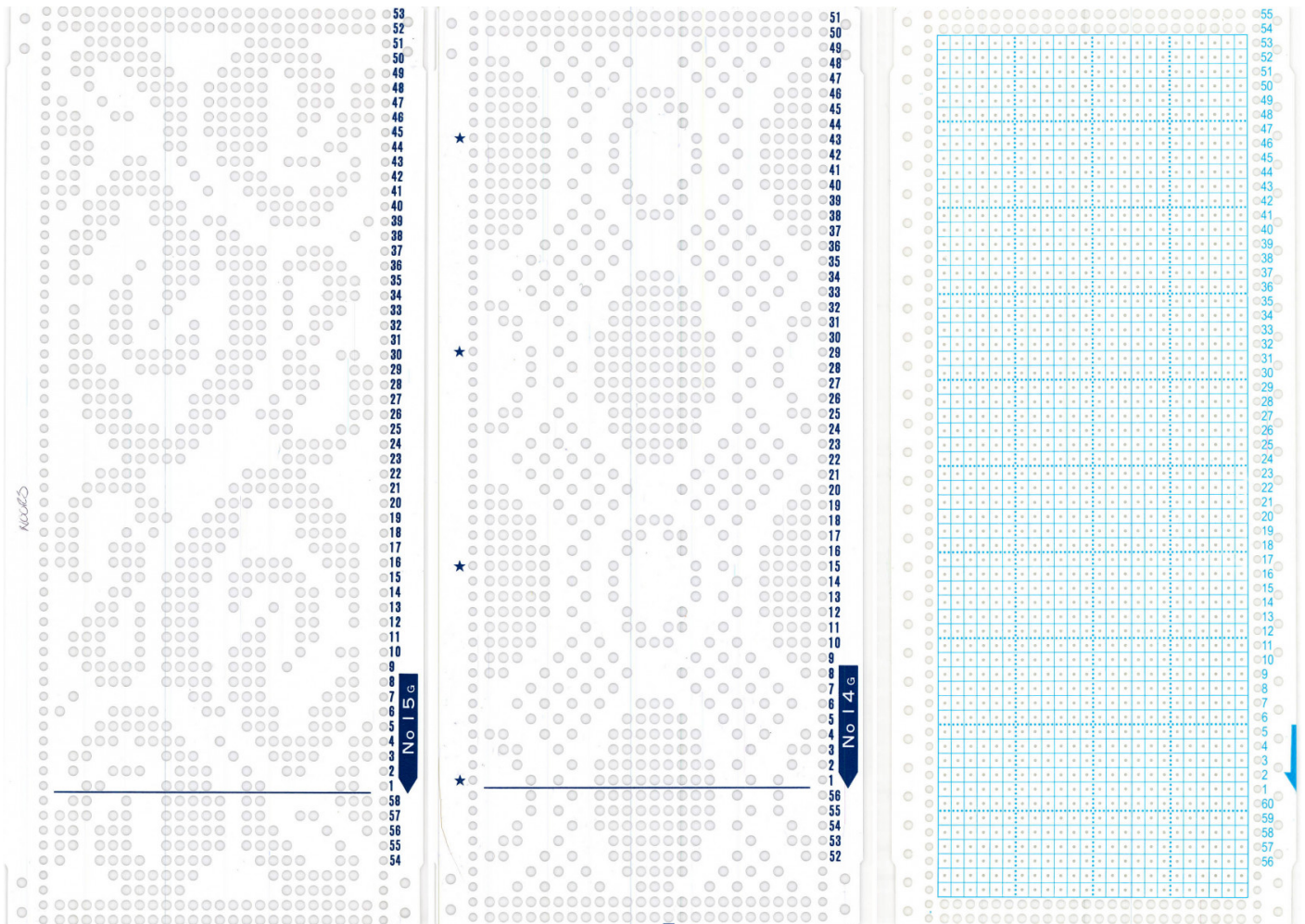
**BASIC STEPS TO PATTERN KNITTING**

# How to use a punch card: video

The page [How to use a punch card: Step-by-step](#) provides the most comprehensive overview. However, if you prefer a video format, the video below provides for when you first start using a punch card on the single bed knitting machine. The video is quite long: jump to 3:30 and watch until approx. 10:00 to see the essentials.

<https://www.youtube.com/embed/1e53VkkTrVM>

# Designing your own punch card



Two pre-designed punch cards and one blank punch card

You can use pre-made punch cards or create your own design using a blank punch card. With a special tool, you'll punch holes in the blank card. Make sure to pre-plan your design, as mistakes are easily made. Our tips for planning your design:

- Grid paper and a pencil
- Excel (scale the cells to be square)
- *Adacad*, an open source program for weaving. As weaving and knitting design both use binary code, you can use the program for this purpose as well. Link: [https://adacad-4-](https://adacad-4-1.web.app/)

[1.web.app/](https://adacad-4-1.web.app/). Steps:

- Select "add draft" on the left top, enter the amount of vertical under "warps" and the amount of horizontal rows under "weft".
- Click on the draft that appears, select "draft" at the top of the page.
- Under "loom type", on the left of the page, select "jacquard". Click on a square in your draft now and it turns black.

- o Make your design. Save it by pressing the house icon --> "export as" --> the file type you want.

## Reading the punch card:

