

SuperbaKnit interface electronic hardware exchange for Lightbox/Pegboard

The picture below shows the 2310 memo-matic light scanner machine



Decouple the light scanner by unfastening the 2 bolts and the plastic shaft.

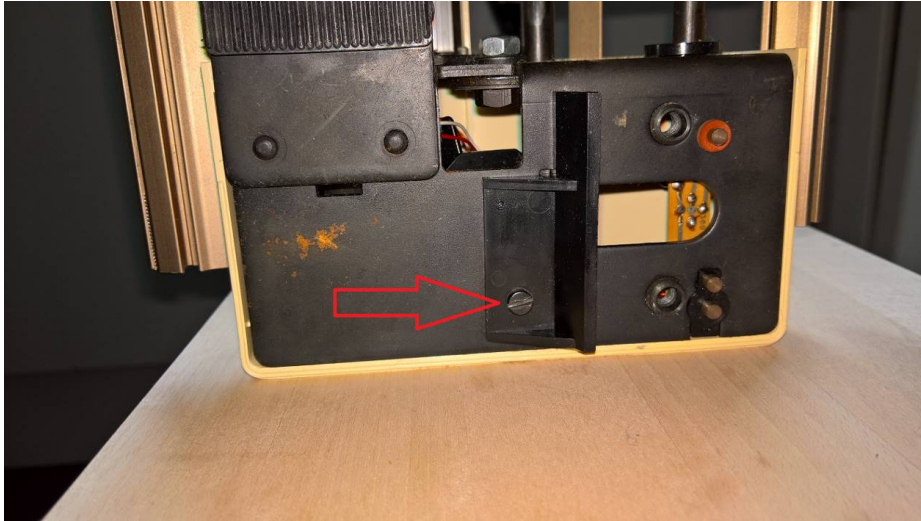


The machine now looks like the one above

Formatted: Right

Place the bed on a table or workbench with the right end hanging free to give access to the bottom.

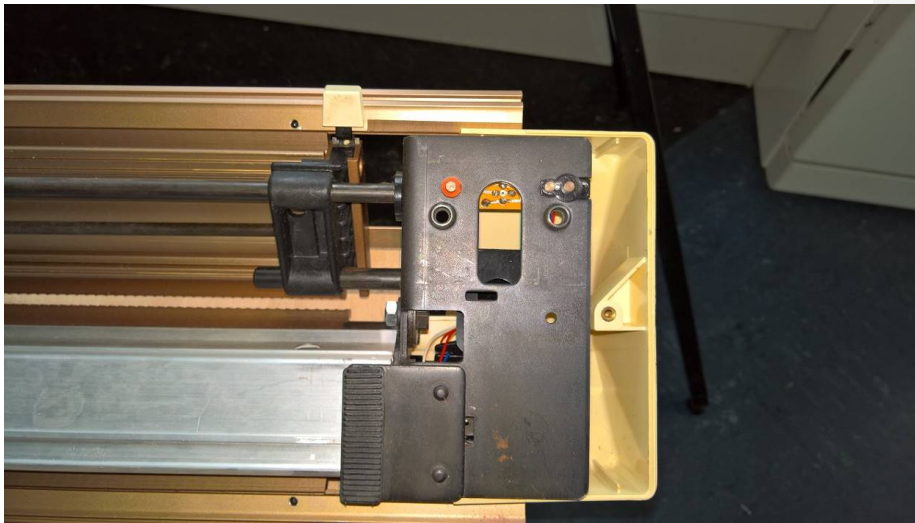




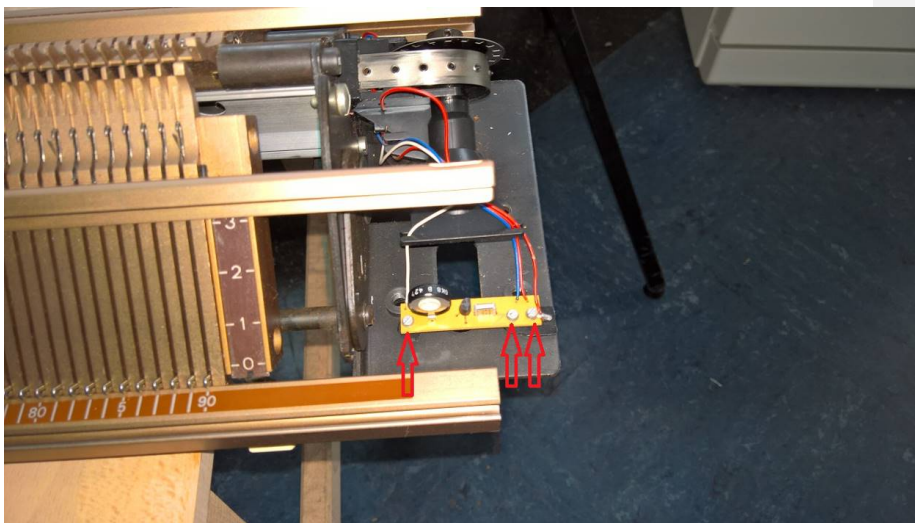
Remove the screw that secures the plastic cover.



Keep the screw and the plastic piece, both are needed later.



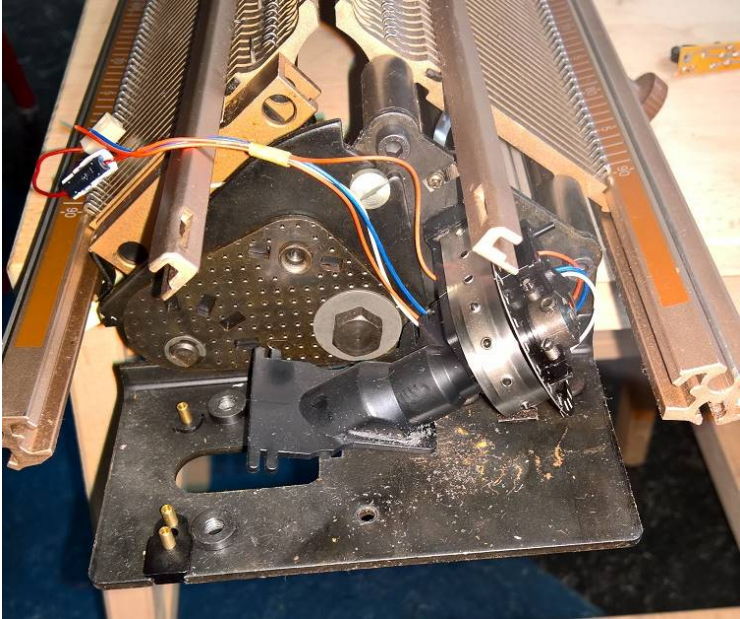
Slide the cover to the right and remove it completely.



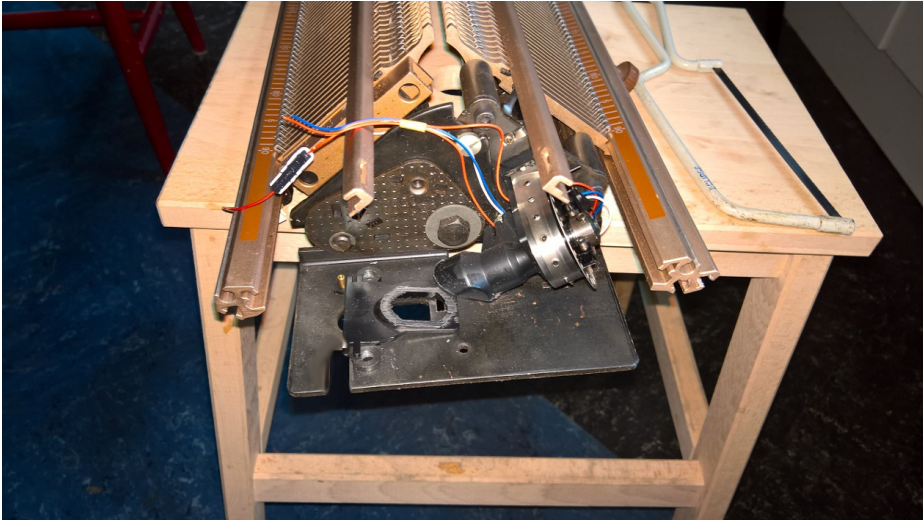
Remove the 3 small screws indicated in the picture above. Cut off the 3 wires (mostly colored red, blue, white) that are soldered into the board. A 4th red wire, that comes loose with a solder lug, comes from under the metal timing belt. Cut off the solder lug. Then enter this loose end of red wire in the clamp connector. No need to remove insulation. Put it right in the middle and then snap together the clamp. It usually needs no tools, just your fingers, to close it.

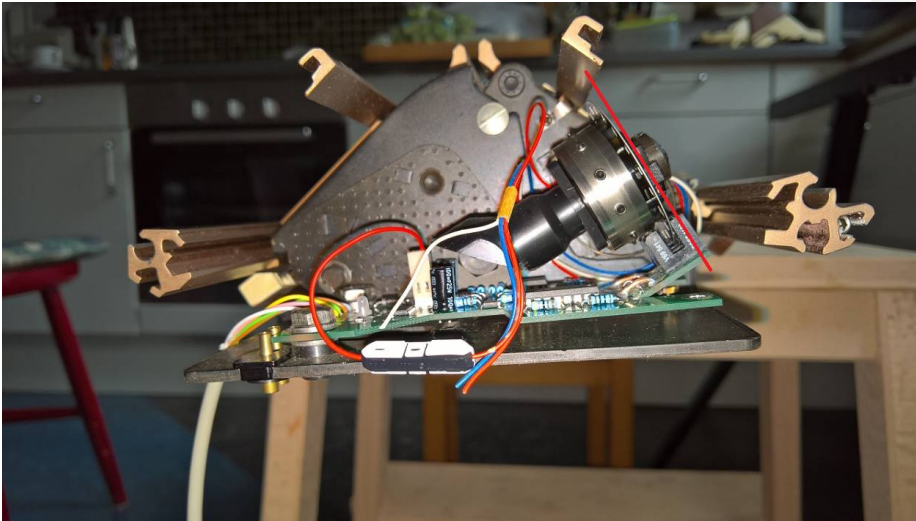
Remove the insert that contains two contact studs. The 3 wires that were connected to the removed pc board are not used anymore and can be taped together.

A piece of plastic blocks the place where the new interface should be placed.



Cut it away with a small saw just as in the following pictures.

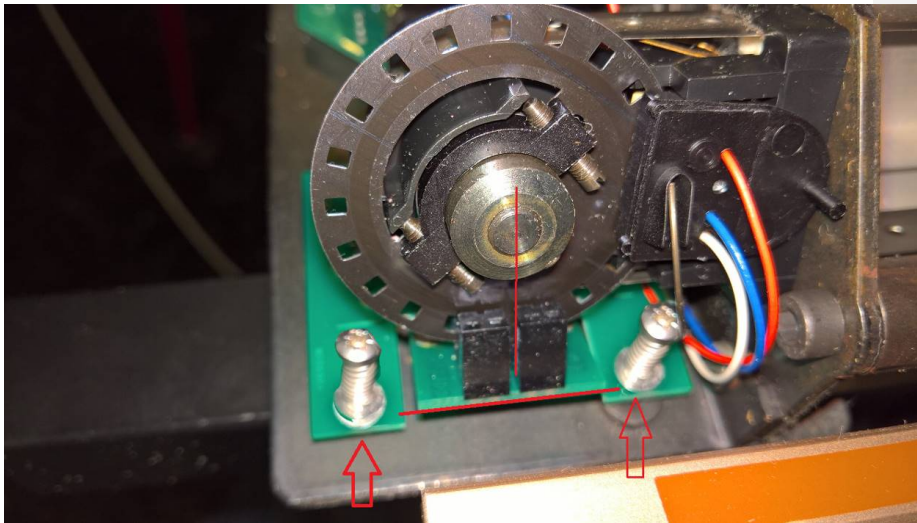




Place the new interface board on the 2 M6 threaded studs, and the slot sensor aligned with the timing wheel as in picture above. Use one washer below and one washer on top of the board, then insert the M6 bolt and fix it only loosely.

Attach the connector on the red wire to the header on the printed circuit board.

Verify that the sensor angle is approximately- the same as the angle of the wheel. If not, you can bend the sensor to the right position.



Alignment of the sensor

Verify that the edge of the sensor pc board is horizontal. If not, you can bend it to the right position.

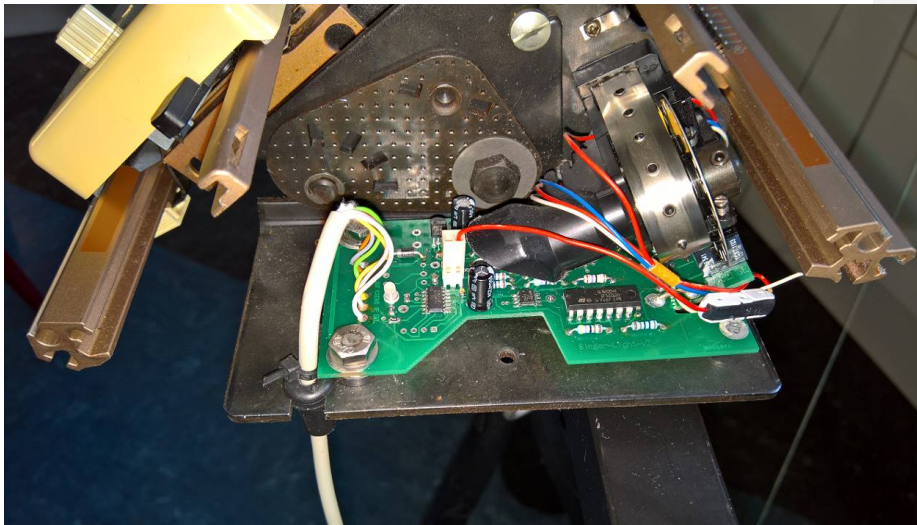
Align the sensor by adjusting the position of the board in the horizontal plane in such way that:

1. The wheel can rotate free in the sensor
2. The middle of the sensor is as good as possible aligned with the center of the wheel shaft.

Fix the M6 bolts permanently

The height of the sensor can be adjusted by the screws indicated in the picture above.

Turn the screws clockwise till the board is approx. 1.5...2mm higher at this end compared to the other side where it is fixed by the M6 bolts. Always turn first the inner screw, then the outer screw to keep pc board leveled horizontally.



The cable that is attached to the board should go through the bottom where the 2 contact studs of the old printed circuit board were before.

~~Now you have to~~ adjust the optical sensor height and the precise cursor timing. For instructions, please consult the “SuperbaKnit Interface B Adjustments” document.

~~Finally, Now~~ you can place back the plastic end cover of the bed just in the reversed way as you removed it, and secure it with the screw + plastic piece from the bottom side.