Why does the printhead wear out?

The EasyCoder 501 XP is fitted with a 12 dots/mm high-performance thermal printhead. While the receiving face material (e.g. labels, tickets, or continuous strip) is fed past the printhead, small resistor elements (dots) on the printhead are electrically charged and thereby heated. The heat from the dots is transferred to the thermal transfer ribbon or direct thermal paper so as to form the dot pattern which makes up the text, images or bar codes.

Printhead wear-out is an inevitable process which applies to all thermal printers regardless of brand. During printing, the dots must be heated and cooled off very rapidly, which in combination with mechanical abrasion sooner or later will wear out the printhead, making the printout gradually weaker. Some dots may even cease to produce any imprint.
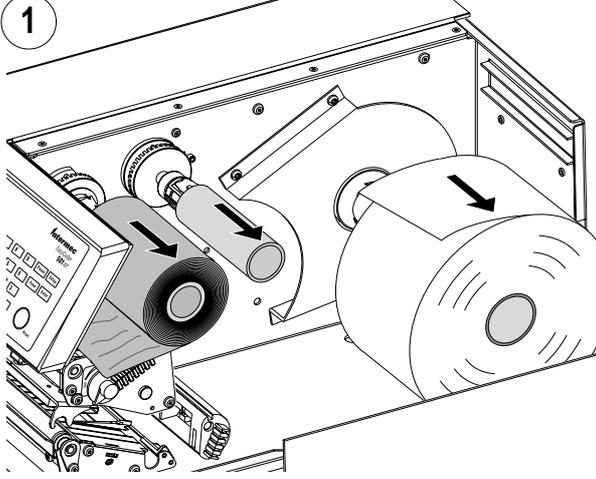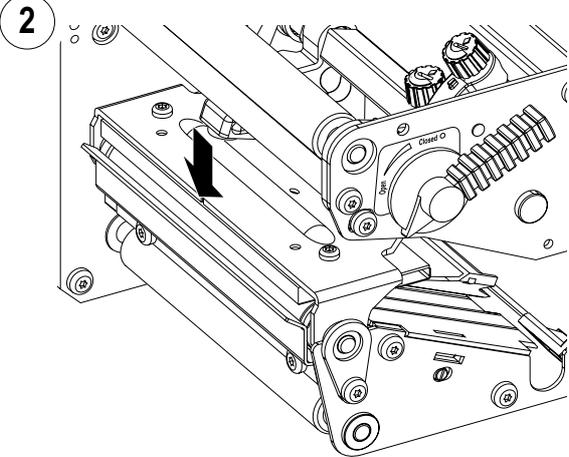
Simple precautions

Some measures can be taken to prevent premature wear-out:

- Clean the printhead regularly, as described in the Installation & Operation manual. Not only will a dirty printhead produce an inferior printout, but any residue on the dots will prevent heat to dissipate through the transfer ribbon and paper.

- Use original Intermec transfer ribbons only. These are optimized specifically for your printer. Inferior back coating on a non-approved transfer ribbon may cause residue which can completely destroy the printhead.

- Follow the recommendations regarding Paper Type setup in the Installation & Operation manual. Too much energy to the printhead will wear it out rapidly.

- Do not use higher Print Speed setting than necessary.

- Do not use a higher Contrast setting than necessary, especially not in combination with the highest Paper Type Constant settings.

- Do not use a higher printhead pressure than necessary.

- Never print outside the paper width. Dots not in contact with the paper will not be cooled properly.

- In case of thermal transfer printing, use a ribbon wider than the paper (if available).

- When using a paper with less than full width, be careful to adjust the printhead lift arm so there is an even pressure across the paper web. Not only will an uneven pressure impair the printout quality, but it may also prevent the dots from being properly cooled. Moreover, a sharp outer paper edge in direct contact with the printhead may cause excessive mechanical wear on some dots, which may be visible when printing on wider paper later.

- When using preprinted labels or labels with some type of varnish or non-standard top coating for direct thermal printing, use original Intermec labels or inks recommended by leading manufacturer's of direct thermal paper. The labels should not contain any aggressive substances such as chloride or grinding substances such as titanium dioxide.

Step-by-step instructions

1

Turn off the power.
Remove any paper or transfer ribbon.

2

Using your fingers, pull the printhead bracket away from the magnet in the lift arm. Do not use any tools.

3
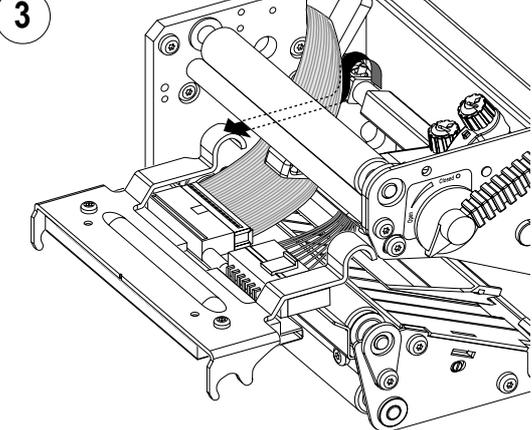
Disconnect the hooked printhead bracket fingers from shaft. Carefully pull out the printhead as far as the cables allow.

4
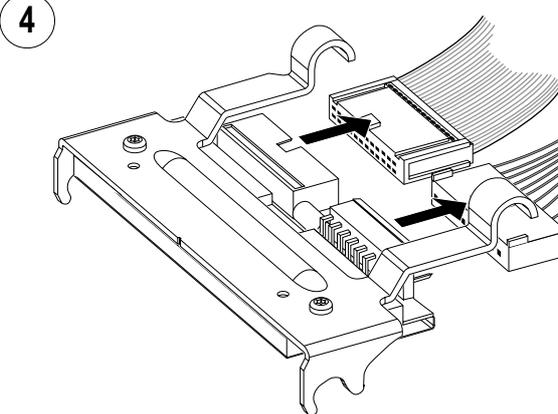
Disconnect the two cables from the printhead. Note the snap-lock on the white connector. Pull at the connectors – not at the cables!

5
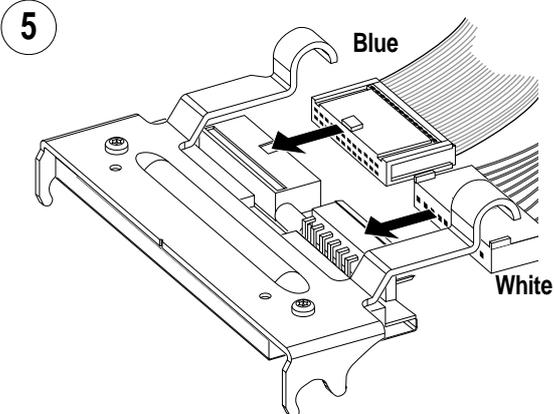
Blue

White

Connect the cables to the replacement printhead.
Blue connector to the left, white connector to the right.

6
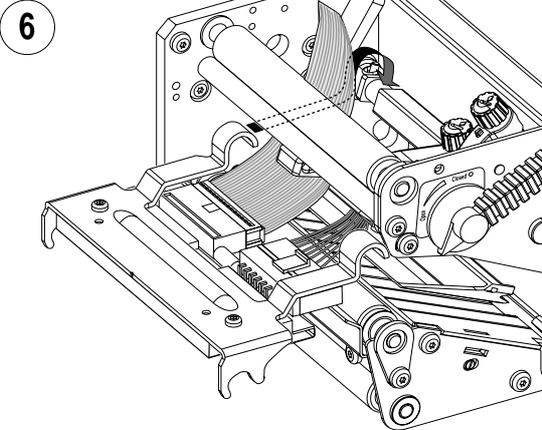
Fit the hooks of the printhead bracket fingers onto the headlift shaft. Close the printhead so the magnet engages the printhead bracket. Turn on the power.